

Collaboration and Confucian Reflexivity in Local Energy Governance: The Case of Seoul's One Less Nuclear Power Plant Initiatives¹

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South Korea's energy policy has been historically established through an energy production structure that relies on thermal and nuclear power generation in relation to a centralized 'Hard Energy System'. However, climate change issues are forcing the transition to renewable energy, and it is crucial for local governments to enable this. This study analyses Seoul city's local energy governance, which is known as One Less Nuclear Power Plant Initiative, by applying the collaborative governance framework inspired by Ansell and Gash (2008) and the Reflexivity framework of Confucianism. It is considered that the local energy governance model of Seoul city can be used as a model by other local governments, and it will eventually lead to a decentralized energy system in this era of energy transition.

Keywords: Local Energy Governance; Confucian Reflexivity; Collaborative Governance, Energy Decentralization

Introduction

South Korea (herein referred to as 'Korea') has had very conservative-high dependence on nuclear, petroleum and central government leading-in approach to coping with energy transition issues. In addition to becoming the 11th largest global economy (based on International Monetary Fund Stats in 2017), Korea has played a leading role in the green-growth paradigm. However, the current emphasis of the Korean government is more on "growth" than "green"

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which reveals low performance (Sonnenschein & Mundaca, 2016). Korea's energy policy has been developed through strong leadership of central government and the market mechanisms.

Korea's first steps towards developing and industrializing the use of nuclear energy began under the blue-print of solving the nation's energy poverty phenomenon. As the country has no natural resources available to provide residential and industrial power, nuclear energy was perceived by Koreans as being "dream energy" (Lim & Tang, 2002; Yoon, 2006). The nuclear dream was first realized when the first Gori nuclear power plant was built and began operation in July 1978, and Korea's nuclear power industry then reached its full stage of development during the 1970s and 1980s amid the global oil crises. Since this time, nuclear energy has been adopted as an alternative energy source to reduce reliance on oil and thus improve the country's energy security (Lim, 2019). However, several unexpected nuclear energy events, such as the nuclear disaster in Fukushima in 2011, illustrated the danger of nuclear power and caused a sense of distrust amongst Korean citizens (Jasanoff & Kim, 2013). In addition, on a local level, construction of the Miryang electrical transmission tower which is connected to the Gori nuclear power plant, exacerbated anti-nuclear feelings and caused tension between residents and the Korea Electric Power Corporation (Min et al., 2018). Furthermore, the methods used to treat radioactive waste became a cause of concern that fueled the need to transition to renewable energy sources.

Despite the growing need of energy transition, Korea still has a long way to go (Yoon & Sim, 2015). Statistically, Korea's energy sources as of 2016, can be broken down as follows: petroleum (41%), coal (31%), natural gas (14%), nuclear energy (13%), and renewable energy (1%), as shown in Figure 1. This shows that Korea is still heavily reliant on fossil fuel and renewable energy provides only 1% of the country's total energy supply (Dudley, 2015).

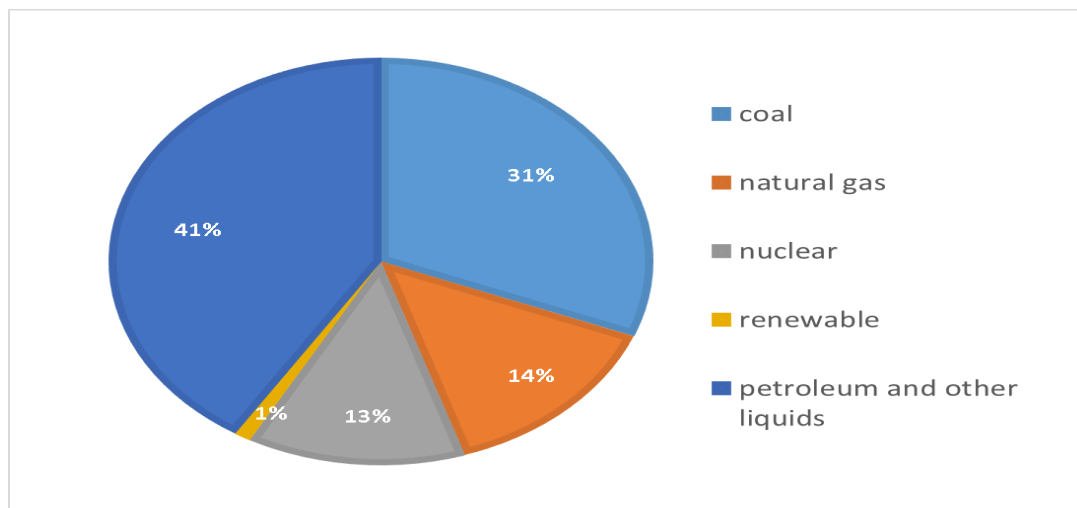


Figure 1. Total Primary Energy Consumption by Fuel Type in Korea

Source: BP Statistical Review of World Energy 2016

As the nation advanced under its development paradigm, it also grew as a developmental state through a compressed course of modernization (Yun, 2006). A hard energy system, where fossil fuel is used as the primary energy source, is considered to be the energy system of a developmental state, where the state is run by a centralized, undemocratic system, and the state and capital have a direct influence on technology and development of a stable energy supply system. Central government is thus the driver of a hard energy system, and it is almost impossible to structure and produce new independent policies that are specific to local regions. Problems of equity are also involved, as the system demands sacrifices from specific regions of the country. For example, the nuclear power plant at Gori supplies energy to neighboring cities and industrial districts, such as Ulsan and Busan, but little to its communities because of their low population rates. Although nuclear energy guarantees a stable energy supply, it also causes environmental issues and social conflict. It became evident that in the context of “new balanced development”, Korea’s policies were facing energy independence issues (Lee, 2018a). Therefore, to overcome such shortcomings, it was considered necessary for the nation to switch to an energy system based on energy decentralization and innovation at the local level (Van Der Schoor & Scholtens, 2015).

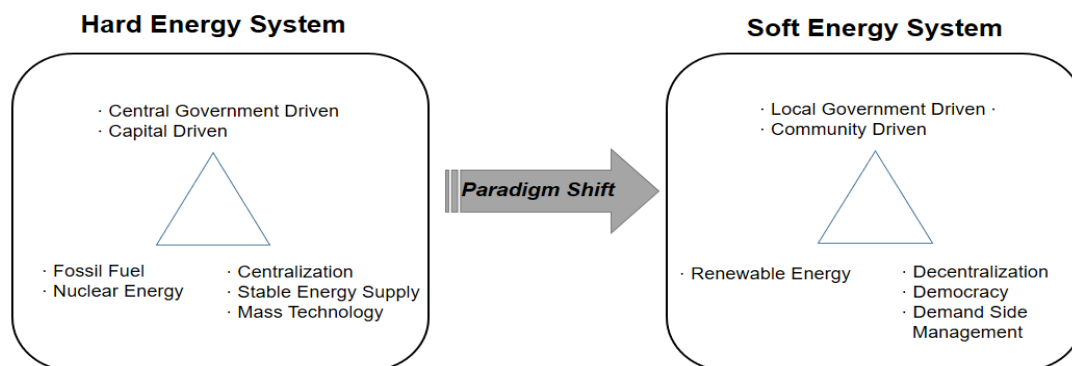


Figure 2. Transition toward soft energy path

Source: Lovins (1977), modified by the authors

Pre-existing policies led by the Korean government had limitations because they did not inspire the public to participate in the procurement of energy, nor in the management of supply and demand (Woo et al., 2017). Such policies were initiated by central government and also impeded the advancement of renewable energy policies, such as small-scaled and dispersion-oriented policies. Thus, efforts to overcome such limitations were held and Seoul’s ‘One Less Nuclear

Power Plant' (herein referred to as 'OLNPP') policy was drafted. This policy called for a conversion to a Soft Energy System Triangle, which had been popularized by Amory Lovins (Lovins, 1977) and is based on concepts of renewable energy that are local government oriented, and energy decentralization.

Energy transition, broadly defined as “a radical, systemic and managed change towards more sustainable or more effective patterns of provision and use of energy (Rutherford & Coutard, 2014)”, but if we look at the term with a narrow perspective, energy transition can be interpreted as a shift from a country's economic activities based on one energy source to an economy based on another energy source, such as from oil to natural gas, from natural gas to electricity and heat (Ganley et al., 2016). Energy transition is an ongoing process (Fischer-Kowalski & Haberl, 2007; Haberl et al., 2011), and a task for society, which cannot be obtained without great deal of effort.

This paper aims to analyze the Seoul city's 'OLNPP' policy with the theories of collaborative governance and Confucian concepts of reflexivity and deliberativeness. The article proceeds in four parts. The section 2 provides conceptual framework leading to the birth of this policy. The section 3 describes overall policy process and background of OLNPP 1&2. The section 4 explores the possibility of applying collaborative governance model with Confucian value for the analyzed cases. Here in our study, we highlighter that not only does the policy itself represent the current situation that requires a decentralized energy system, but it also symbolizes the city's push for autonomous policy-making and a participatory energy governance system. Lastly, we are suggesting the summary of our study and concluding remarks in the section 5.

Collaborative Governance

Multiple definitions of governance have been expounded (Moore & Rhodes, 1973; Frederickson 1997; Bevir, 2008). However, if we consider governance from a democratic perspective, it can be defined as the evolution of social capital and civil society involving high levels of participation (Ansell & Gash 2008; Kooiman et al., 2008). Collaborative governance is one of the diverse types of governance, and the term commonly relates to cooperation between diverse groups, such as government, public, and private sectors, where each group participates in problem-solving processes relating to social issues (Rhodes, 1996). However, its definition remains amorphous, and collaborative governance can also be considered as referring to the dynamics between participants (Ansell, 2012). They defined “collaborative governance as a governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus oriented, and deliberative, one that aims to make or implement public policy, and manage public programs and asset” (Agranoff & McGuire, 2004). As a result of gathering opinions, collaborative governance can be interpreted as a method that helps solve social issues that go beyond organizational boundaries and politics, through utilizing structured interaction between autonomous actors and organizations under the leadership of government to create new public value.

Collaborative governance shares some issues with participatory governance (Scott & Thomas, 2017). However, collaboration seems to extend the range of interactions among policy actors to include component dynamics (Ansell & Gash, 2017) and recent approaches to the platform concept of collaboration—the latter of which is the developed form of the collaborative governance model.

The current study looks to develop Ansell and Gash’s model, which speaks to the dynamics of six important collaborative governance criteria: (1) forums are initiated by public agencies or institutions, (2) forum participants include non-state actors, (3) participants engage directly in decision-making and are not merely consulted by public agencies, (4) forums are formally organized and each meets collectively, (5) forums aim to make decisions by consensus, and (6) the focus of collaboration is public policy, or public management. However, there is a critical drawback inherent in Ansell and Gash’s collaborative governance model: while it does define “collaborative governance” as serving public purposes, it does not present a theory as to why policy-makers choose it (Scott & Thomas, 2017; Lee, 2018a). The motivation behind the selection of the collaborative governance model is important to public servants or policy-designers, but this model lacks the ability to explain in theoretical terms motivations and the grounded thought process.

To achieve the best from collaborative governance, it is necessary not to use forcible commands by, for example, pushing the private sector to act, but rather use the diverse and creative ideas proposed towards achieving a common goal of interest. In addition, collecting resources only available to the private sector while maximizing opportunities is also a critical aspect of collaborative governance. Ultimately, collaborative governance blurs the distinction between the public and private sectors, and pulls a variety of actors into the network.

The public is becoming increasingly aware that traditional methods of resolving social problems are no longer appropriate, and the importance of collaborative governance is being considered as the new method of social arbitration. However, collaborative governance is not a panacea that can efficiently resolve all kinds of social problems, and society calls for acknowledgement of institutional diversity in this era of increasing governance. Such inclusion also incorporates voluntary involvement from various members of society, which could assist in finding resolutions to social issues (Ostrom, 2005).

Reflexivity and deliberativeness in Confucianism

Former Singaporean chancellor Lee Kwan Yew insisted that “Western democracy is not applicable for East Asian politics in its direct form, and it needs to be modified in the Asian model” (Verweij et al., 2013). The value of East Asian public administration culture comes from the root of Confucianism (Kwon et al., 2014). Kim and Jung (2003) insisted that though the influence of Confucianism is decreasing, the uniqueness of Confucian public administration culture is the basic background of all East Asian Society and politics, especially in China and

Korea (Kwon et al., 2014). Still, in Korean public administration, Confucianism has a strong influence compared to other factors (Landeta-Manzano et al., 2018). In other studies, empirical evidence has been given as proof of a correlation between Confucian value and the public motivation of public officers (Park & Kim, 2015). Also, other scholars have successfully found relevance in Confucian values as an influential factor (Tian, 2017; Kim, 2018). Based on these rationales, Confucian deliberativeness and reflexivity are unique and original components of the Korean governance system. This system offers a comprehensive explanation of the setting of ultimate policy goals, and thus affects leadership, collaboration and the design of institutions.

Scholars in public administration have argued that Confucian elements, such as respect for authority and obedience for hierarchy, consolidate a rigid hierarchy and cause segregation in social and political structures (Loader, 2000). However, the examination of a synthesis between Confucianism and governance theory conducted in this study suggests different perspectives to those derived in original debates, and these could eventually have a positive effect on enabling a system of “good governance”.

Confucian self-discipline (修身論) is one of the core elements of Confucianism. It is generally misunderstood that Confucianism is too group- and community-focused to allow individualistic diversity and individual freedom and rights (Tseng, 1973; Hwang, 2001). However, Confucian philosophy is quite unique in that it contains and embraces both individualism and communitarianism. Confucianism argues that all things and relations begin at the level of the individual, and it thus places considerable emphasis on self-development while simultaneously seeking a harmonious state in relationships with others and the natural environment. Tu Weiming refers to the harmony existing between humans and nature and the oneness of humans and nature as being anthropocosmic (人間-宇宙同形同性的) (Tu, 1996).

The core belief of Confucian self-discipline is well expressed in *The Great Learning* (大學), which is one of the four main Neo-Confucianist texts, and it is known to be written by Jeungja (曾子, 505 – 435 BC), a famous junior disciple of Confucius (孔夫子, 552 – 479 BC). According to *The Great Learning*, there are eight categories (or stages) to self-realization: 1) investigating things and affairs (格物), 2) extending knowledge and understanding (致知), 3) having perfectly genuine intentions (誠意), 4) having righteous and balanced thoughts (正心), 5) being disciplined and refined (修身), 6) ensuring that one’s household is aligned (齊家), 7) participating in ensuring that the nation is nicely ordered and ruled (治國), and 8) creating a peaceful universe (平天下).

According to Confucianism, all things begin with the individual and are then extended to parents, family, friends, neighbors, community, nation, nature, and the universe. Therefore, the individual is the center and the starting point of all things and relations. In this respect, Confucian self-discipline is closely connected to reflexivity and deliberativeness.

Let us then examine in greater detail the main characteristics of reflexivity and deliberativeness in Confucian thinking. The primary premise is that an individual should use self-discipline to overcome the stage of “self” (小我) and to move to the stage of “Self” (大我). Instead of

maximizing self-interest, an individual must make endless efforts to contribute to the well-being of (and staying in harmony with) his or her family, community, nation, and the universe as a whole. At the stage of Self, an individual is then aware of herself or himself not only as an “independent self” (獨立的自我) but as a “relational self” (關係的自我).

Second, through the first five categories (or stages) of *The Great Learning*, an individual ultimately recognizes unity with heaven (天人合一) and nature. In the context of Confucianism, a completely self-disciplined person participates in social obligations and also is responsible and accountable for the well-being of the community and nature (Low, 2008). Third, Confucianism also strongly encourages an individual to metaphorically “walk in another person’s shoes” and to consider issues from the viewpoints of others (易地思之). In *The Analects of Confucius* (論語), Confucius states, “Do not ask others to do things or conduct affairs that you do not want to do (己所不欲, 勿施於人)” in *The Analects of Confucius*, XV: 23). Fourth, Confucius also emphasizes respect for diversity and heterogeneity (君子和而不同, 小人同而不和)(The Analects of Confucius, XIII: 23). In the Confucian view of reflexivity, different and varying opinions are allowed to be freely expressed and also to be challenged. Groups and individuals should not be pressed to adopt an opinion or adhere to only one opinion; free speech and diversity must be fully guaranteed among members in any type of organization or community. The respect for diversity and heterogeneity in Confucianism allows for the promotion of diversity, heterogeneity, equal opportunities, meaningful participation and decision-making in community affairs, empowerment, and staying in harmony with the members of all societies.

Fifth, the Confucian view of reflexivity is closely related to learning and practice (學習), and a Confucian person must continue to be involved in continuous learning and practices at all times. According to a Chinese proverb, “Learning is like rowing against the current. If you stop doing it, you will go backwards (學如逆水行舟, 不進則退)”. Therefore, without continuous learning, practice, and associated application to the real world, it is not possible for our current situation and affairs to be improved; only continuous learning and practice can help us investigate and fundamentally improve these. Sixth, the call for voluntarism and participation is one of the main characteristics of the Confucian view of reflexivity and deliberativeness. A Confucian person that is morally enlightened is required to voluntarily participate in current situations and affairs and to take associated action, thereby contributing to making improvements. Even when a person is suffering from hardship, he or she must voluntarily participate in order to make achievements, thereby fulfilling her/his social obligations as a Confucian person. In Confucian thinking, one person should not strive to satisfy his or her own well-being and happiness. Inherent in her/his moral enlightenment is recognition of being part of and closely related to the community and nature and contributing to its improvement. When this is achieved, he or she can be considered a person who has achieved self-realization (Bae, 2013; Bae et al., 2016).

Case Analysis Framework

After being elected the mayor of Seoul in December 2011, Park Won-Soon established in 2012 the OLNPP policy project as one of his pledges for change. Policy research was initiated in 2013, and it was mostly discussed in correspondence within the administrative leadership team of Mayor Park, who became both a political figure and the policy analyst for Seoul's Solar Power Plant project, one of the significant projects within the OLNPP.

The aim of this research is to investigate the dynamics of Seoul city's OLNPP initiative with respect to the theories of collaborative governance proposed by Ansell and Gash (2008) and those of reflexivity and deliberativeness in Confucianism. The original model of Ansell and Gash, which follows a starting condition through the process of collaboration to the final outcome, enables a dynamic analysis of the construction of collaborative governance with respect to time periods and phases. It is thus an appropriate framework to use for analyzing the mechanisms of Seoul's local energy governance, which is divided into two phases: The One Less Nuclear Power Plant (OLNPP: 2011–2014) and the One Less Nuclear Power Plant – 2 (OLNPP-2: 2014–2017). However, the original model of Ansell and Gash does not comprehensively reflect the thought processes involved in decision making or the ultimate values involved in achieving OLNPP. We therefore suggest that the important criteria used in governance in Seoul's case are a transformed version of collaborative and reflexive governance framework inspired by the work of Ansell and Gash and the philosophy of Confucian reflexivity and deliberativeness.

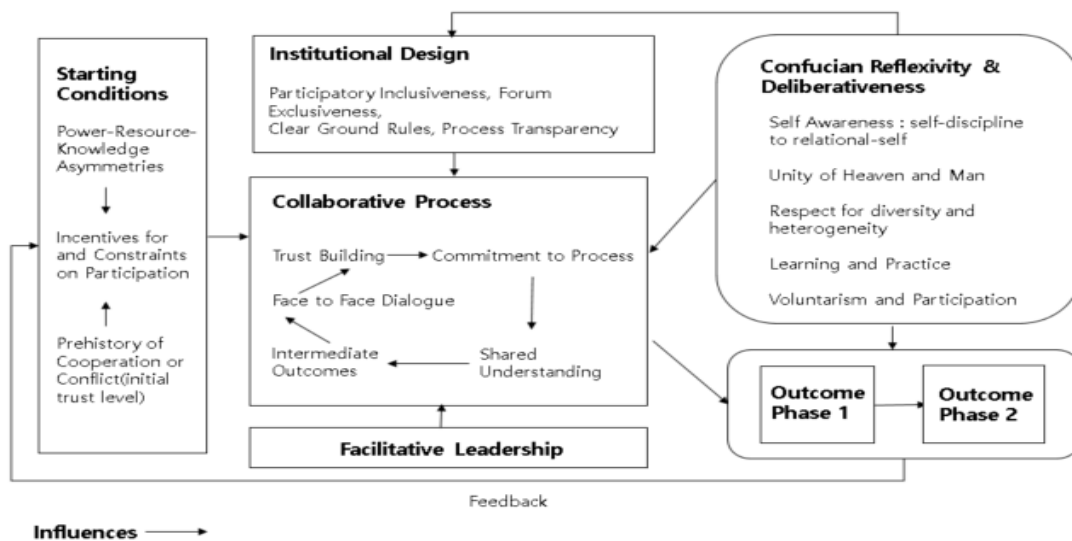


Figure 3. Collaborative and Reflexive Governance Framework

Source: Ansell and Gash (2008) and Bae et al. (2016), redesigned by the authors

As shown in Figure 3, by employing Confucian reflexivity and deliberativeness, improved governance structure, mechanisms, and processes in the context of Korean society can be obtained, and eventually better policy outcomes can be achieved. The emphasis on learning and practice (學習) in Confucian reflexivity and deliberativeness ensures that the needs and opinions of policy customers and stakeholders are investigated, and it also enables further efforts to be made towards implementing better solutions for dealing with current problems and affairs. Furthermore, Confucian reflexivity enables an analysis of current governance structure, a diagnosis of challenges, and promotes public discourse and debate with policy customers and stakeholders. Though the Ansell and Gash governance model suggests crucial components of collaborative governance, it lacks an overall thought process and a background for the setting of ultimate policy goals. In addition, the unique Korean public administration culture relies on Confucianism. With this rationale, to better understand and evaluate the case of Seoul City, the Ansell and Gash's model of collaborative governance should be modified as shown in Figure 3.

When people are self-aware and acknowledge that they are part of nature and closely related to each other, they are then able to consider a broader and wider spectrum that reaches beyond the immediate family, community, region, and nation. This awareness enables an individual to consider crucial issues and affairs without making his or her immediate happiness the priority, and also to make a willing sacrifice that betters society and ultimately protects the environment and planet. It can also contribute to effectively dealing with global issues such as climate change, under the structure and framework of environmental governance. In addition, voluntarism and participation in Confucian reflexivity helps to prevent actors and stakeholders from free-riding or overcome social dilemmas that often occur in public discourses and debates, or when decisions are being made or policies and programs are being implemented and evaluated in the contexts of Korean governance (Bae, 2013; Bae et al., 2016).

Case Analysis: The One Less Nuclear Power Plant (OLNPP) Initiative

Reason for case selection and its significance.

Seoul is the capital city of South Korea, and its metropolitan area includes the city of Incheon and the surrounding Gyeong-gi province. The population of the Seoul metropolitan area accounts for 49.5% of the country's total population as of 2016.

The first reason for using the OLNPP to analyze collaborative governance is that its creation is representative of the split in opinion within Korean society about the use of nuclear energy. Korea's economic growth occurred over a short time period, and the country's economic development was heavily dependent on the central government's initiated "Hard Energy System", which was a method of development based on fossil fuels and nuclear energy. However, the increasing awareness of the seriousness of climate change and global nuclear disasters such as Fukushima compelled a change in Korea's energy paradigm. In addition, the local conflict in Miryang in relation to the electric transmission tower was a further push for

change. Seoul's Local Energy Plan, OLNPP was compiled based on local hostility towards nuclear energy.

The second reason for the case selection is that Seoul is able to represent the autonomy power of Korea's local government. As of July 2018, Korea is comprised of 17 first-tier local governments including six metropolitan cities. Each local government complies to *Energy Act* requirements under Article 7 by establishing local energy plans every five years. However, there is a current dispute over the differences and gaps between the energy plans of individual local governments and those of central government. Seoul's OLNPP is a policy worth imitating and is a good example for use when developing other regional energy policies in Korea. Korea's current regional energy policy also differs from that taken in any previous path during the early stages of energy policies, which were initiated and lead by the central government.

Case Record.

Seoul's OLNPP initiative was a regional energy policy made to overcome Korea's energy crisis. It was also made in response to growing concerns over climate change and the sense of distrust over the use of nuclear power following disasters such as Fukushima. Germany had also announced that they were phasing-out the use of domestic nuclear power plants in alignment with the country's energy transition paradigm (Energiewende) (Gawel et al., 2014) and its long-term vision (Laes et al., 2014). Other countries were also contemplating making changes, and even a nuclear dependent country like France (Fabra et al., 2015) had committed to reducing its dependency. Another important antecedent to change was the rotating black-out that hit Seoul in 2011. Seoul on its own consumed 10.3% (46,903 Gwh) of the total national energy output (455,070 Gwh), while producing only a meager 2.95% (1,384 Gwh) of its total consumption, which is minimal compared to its rate of consumption. Although Seoul has little or no power producing independence, its electrical usage rates were the highest in the country and its power consumption rates were ever increasing. In this respect, a large-scale black-out occurred on September 15, 2011 in several cities across the country, which caused considerable discomfort to many citizens. It was thus evident that certain countermeasures were required to deal with Korea's energy crisis. Seoul then raised concerns about electric independence, and decided to work towards strengthening energy management and increasing the production of renewable energy.

In 2011, Oh Se-Hoon resigned as Seoul's mayor after losing the Seoul Free Lunch Referendum. Park Won-Soon, who was a Seoul mayor candidate in the by-election (a special election to fill vacancies), presented a policy commitment to decreasing energy consumption and promoting the use of renewable energy. During the election, an incident occurred in the autonomous district of No-won, where leaked radioactive material exceeding standard levels. As this accident occurred immediately after the Fukushima disaster, it helped to amplify the antipathy towards nuclear energy in the country. Park Won-Soon's election as the mayor of Seoul in November 2011 created an opportunity for him to pursue his energy commitment, and Seoul's regional energy policy was put in motion. Between January and February 2012, an advisory group consisting of experts was formed, and a total of 15 expert advisory groups were established to formulate the city's energy policies. In February 2012, the first workshop for citizens was held; in March, a

nuclear power plant reduction conference was held, and the second civil conference was held in April. By actively collecting the opinion of citizens, Seoul worked hard to establish energy policies that meet the demands of the people. The feedback provided showed that the governance system needed to implement policies that helped strengthen energy administrative organizations within the Division of Climate and Environment in Seoul Metropolitan Government. As a result of policy processes, the OLNPP was ultimately announced, and its first goal was to generate 2 million TOE (tons of oil equivalent) which is equal to a level of production that is equivalent to the production volume of one nuclear power plant, using renewable energy sources and by conserving energy and ensuring energy efficiency.

After announcing the measures of the OLNPP, Seoul began to rectify the Seoul Energy Regulation Ordinance for the purpose of systematically operating civil cooperation within the governance structure. This amendment was intended to reform the Energy Regulation Act and to systematically operate a citizens' committee with the aim of reducing the number of nuclear power plants.

Other large-scale debates relating to OLNPP were held in March and June 2014. As Park Won-Soon had succeeded in being re-elected as Seoul mayor, the OLNPP project was continued and the foundation was thus more firmly established. As previously stated, the first phase of the OLNPP aimed to achieve a production goal of 2 million TOE, and the second phase began upon its completion. Based on the results of the first plan, Seoul formulated an ordinance to establish the Seoul Energy Corporation, which was in charge of expanding the renewable energy business and aimed to transfer energy authority from central to local governments.

Collaborative Governance in OLNPP and OLNPP-2 and Thinking of Confucian Reflexivity

In this section, we are approaching the Seoul city's OLNPP1 and OLNPP2 with the collaborative governance view inspired by Ansell and Gash (2008): The structure of our analysis consists of starting conditions, institutional design and leadership, collaborative processes, and outcomes. Since Ansell and Gash model does not provide the comprehensive explanation for the purpose and the radical ideas of certain policy (thought process) and the unique cultural backgrounds of Korea which affect the implementation process, we then try to explain Confucian reflexivity and deliberativeness in local energy governance from the angle of Confucianism.

OLNPP Phase 1: The Emergence of Governance and Early Stage Implementation.

Starting Conditions.

In the early stages of policy making, a disparity was noted between Seoul and its citizens with respect to power, resources, and knowledge. The Fukushima disaster and Seoul's large-scale cyclical power outage had caused a growing distrust of nuclear energy amongst citizens. Furthermore, citizens increasingly distrusted the lack of public representation and power in

central and local government and public institutions. The process of forming energy policies in Korea was a closed system (Lee et al., 2014), and a growing imbalance was apparent with regards to information, ownership over information, and the lack of power, resources, and knowledge available to citizens. Seoul thus tried to mitigate this imbalance in knowledge and information by holding a workshop for citizens (February 2012 with 100 citizens) and citizen debates (April 2012 with less than 300 citizens). Citizens participated in the workshop and debates because of their fear and anxiety towards the use of nuclear energy. To illustrate, the asphalt accident in the autonomous district of No-won generated sudden public awareness that local energy policies should not be totally centralized or assigned by central government.

Institutional Design & Leadership.

Seoul consumed 10.3% of the total national energy production while generating 2.9% of its total energy consumption in 2011 (Lee et al., 2014). Seoul's OLNPP initiative was initially created because of citizens' desire for environmental justice (the Polluter Pay Principle). For example, as Seoul has no large-scale energy plants that directly emit or produce hazardous elements its regional contribution towards paying for pollution is limited. The OLNPP initiative was launched based on an awareness of equity and injustice between regions and also on the basis that an equity problem existed between cities that are privileged, such as Seoul (mass consumer of energy, but who produces little), and those that are home to nuclear energy plant like Gori. However, although the initial design ideas were excellent, the overall system design was initially inefficient due to the lack of an enforced structure by the implementing body. For example, in the case of the photo-voltaic (PV) project, which is a specific project under the OLNPP, inefficient installation made the PV power generation business ineffective (Lee et al., 2018). It was also revealed that institutional limitations occurred due to urban planning constraints, and such problems need to be overcome to enable success beyond these limitations.

Park Won-Soon's leadership enabled him to exert the political influence required to successfully achieve his policy goals. Park Won-Soon introduced the Energy Policy Pledge as his main political strategy and energy policies as his main policy-making area, which made his leadership different to that of the city's former Mayor, Oh Se-Hoon (Lee et al., 2014; Kim, 2017). However, it is the government's duty to provide the institutional design and ensure the way to participate. In that sense, the role of Mayor and his leadership affected in a positive way to accelerate the citizen participation.

Collaborative Process.

A minimum understanding toward the ultimate policy direction among policy actors, which include both city government and citizens, is said to be found in the process. This understanding was about setting a new energy policy direction for Seoul that enable reducing ultimate dependence on nuclear power plants and use a greater portion of renewable energy. Though it did not reach to the concrete solutions for its implementation, it is important that those attempts were found in the early stage. Furthermore, direct communication via workshops and debates opened an ever-present cooperative decision-making structure. Such a collaborative process enabled the amalgamation of citizen committees with organizations. However, collaboration was

limited during the first agenda because of the weak circulation structure, which essentially consisted of micro-units, such as autonomous regions and village communities.

Outcome of OLNPP Phase 1.

However, OLNPP introduced the foundation for establishing the current energy policy direction of Seoul. To enable a reduction in energy consumption and produce 2 million TOE via renewables, processes needed to be strategically conducted to meet targets. Strategies were thus articulated with the purpose of raising adequate funds to promote energy projects that were indicated in the regional energy plan, such as encouraging investment in renewable energy infrastructure.

Since the OLNPP 1 and 2 are official names of Seoul's energy plans, the local government of Seoul is obliged to reset the energy plan following the city's energy ordinance every three years. However, the three-year implementation period is somewhat short for achieving the goal of energy policy. Hence, the need for establishing OLNPP2 became apparent to overcome the trial and error of OLNPP1 and meet their obligation of establishing their own energy plan with a three-year of implementation period.

OLNPP Phase 2: Learning and Integrating.

Starting Conditions.

There have been considerable changes in the processes used to implement OLNPP 2 compared to those used in the initial policy-making stages of OLNPP, particularly with respect to public inclusion and the public sector's knowledge-base and associated resources. With respect to sharing knowledge and encouraging participation between citizens and the public sector, the opinions of citizens were gathered using online and offline surveys, and efforts were made to further induce balanced participation between the public and private sectors, such as by gathering citizens' approval of the naming of OLNPP's 2nd phase. The social debate held in March 2014 for the 2nd phase of the OLNPP obtained the opinions of approximately 400 citizens who participated.

Institutional Design & Leadership.

The institutional structure during OLNPP 2 was more stable than that during the initial implementation of OLNPP, particularly with respect to governance and legal systems. Discussions about OLNPP 2 projects were conducted mainly by the executive committee members involved with OLNPP, and common goals, values, and the vision for the 2nd stage of OLNPP were discussed in their general meetings. To enable the establishment of efficient plans, committee members from each division - the Division of Energy Production, the Division of efficiency, the Division of Industry and Job, and the Division of Community and Welfare - reviewed and evaluated the policy programs. All divisions were involved in discussions as to whether the plans should be established. Thus, by holding a forum for policy debate in the energy industry, it was possible to cohesively collect opinions from both experts and citizens.

The legal basis for Seoul's energy policy was also stabilized and strengthened and energy laws were rectified. This prepared the path to establishing the Seoul Energy Corporation, which enacted Seoul's new energy welfare regulations, and further strengthened the qualitative development of energy policies from an institutional perspective.

The leadership of Park Won-Soon still has had an influence on the implementation of OLNPP 2, but the degree of influence has decreased in line with the strengthening of the governance structure. Park Won-Soon exercised absolute leadership for establishing the energy policy of OLNPP and his re-election provided the continuous succession of Seoul's energy policy, which thus provided the potential for realizing OLNPP 2.

Collaborative Process.

The collaborative governance system for OLNPP 2 was strengthened by the face-to-face communication processes used, which actively provided the opportunity for citizens to participate in selecting the initial policy agenda and aimed to get a consent from citizens of Seoul (February 2014). To evaluate the intermediate outcome, a survey was conducted in March 2014 to raise awareness about the move to reduce the number of nuclear power plants. To ensure that the project could be conducted successfully, citizens were encouraged to participate in the energy policy-making process. They were also asked to respond to the idea of eliminating one nuclear power plant and to provide their consent for this action; 71% of Seoul's residents replied that they were aware of this reduction and 59% provided consent. With access to face-to-face communication, a debate on the Sunshine Imagination Feast (citizen open policy proposal system) was held for 10 million citizens in Seoul, and through practical communication and exchange of opinions, consensus on the direction of Seoul's energy policy was easily established, which contributed to building trust between the public and private sectors.

The OLNPP 2 was specifically aimed to reduce the amount of electricity used to the amount provided by one nuclear power plant, and the amendment of the Seoul Energy Ordinance established the basis for this installation and operation. The role of the Citizens' Committee played a pivotal role in the collaborative governance process. This Committee is comprised of 25 people - including the mayor, civil groups, religious groups, feminist groups, and educational group and houses co-chairs - that consist of two public and two private sector groups to ensure that the public and private sector groups are equally able to voice their opinions. As shown in Figure 4, the governance structure of the OLNPP is divided into two bodies; a decision-making body and an implementation body. The decision-making body is comprised of two levels of governance: The Citizens' Council, which includes co-chairs - a citizen representative and the mayor - plays a role in integrating the opinions and interests of citizens of sub-governance. The implementation body includes 45 members from the implementation council and the actions corps, and is mainly comprised of public servants from Seoul city government and citizens of Seoul.

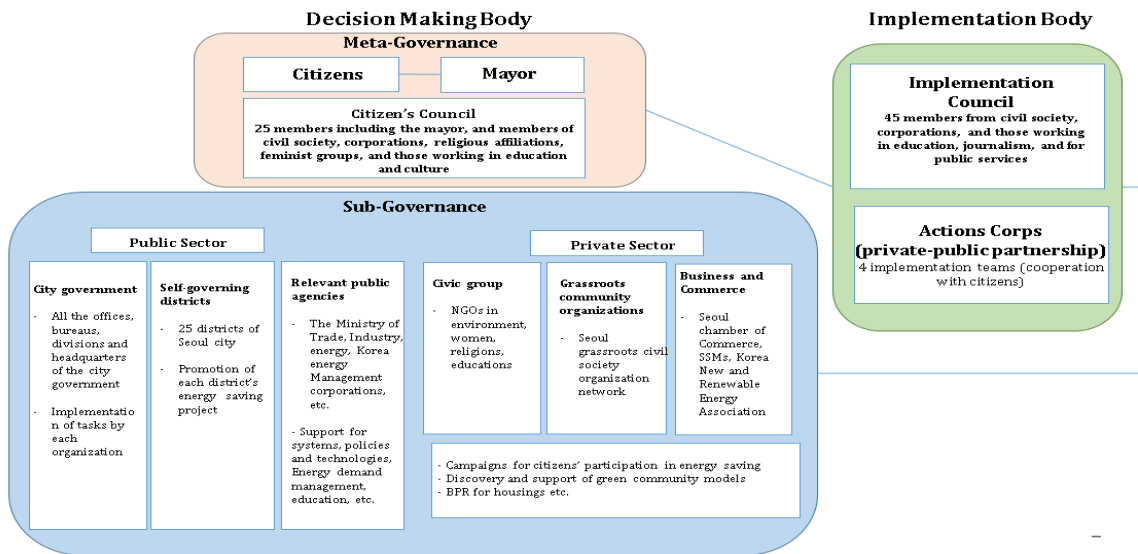


Figure 4. Governance Structure of OLNPP

Source: Seoul Metropolitan City (2014)

Outcome of OLNPP Phase 2 and Integral Outcomes.

The detailed policies for OLNPP 2 were articulated based on the OLNPP paradigm. Two of these policies were based on strengthening institutional support towards alleviating fuel poverty and increasing Seoul's self-reliance with energy. In terms of self-reliance, the focus was more on establishing an energy distribution-supply system and further realizing practical energy governance. In this respect, the Seoul Energy Corporation was established; this body is involved in strengthening cooperation with other local governments.

When considering all the outcomes from the OLNPP initiative, several important features are apparent. The first relates to policy formulation; although central government supports the promotion of nuclear energy, the policy actually reflects the will of the people, and thus contradicts the desires of central government.

Seoul is both Korea's capital city and a metropolis; it is thus difficult to reduce its energy dependence as it has no natural environment that can be used to produce energy. It also has a high population density and the city is economically constrained. However, it is possible to save energy by introducing the use of small-scale photovoltaic power generation panels (Kim 2017) and by strengthening the management of consumption rather than production, thereby increasing energy autonomy, which would be a realistic and pragmatic policy for Seoul. In addition to this, central government abolished the Feed-In-Tariff (FIT) in 2012 and changed renewable energy

measures to Renewable Portfolio Standards. Seoul then created a local-based FIT to enforce the city's newly-made and unique energy policy (Lee & Seo, 2019).

The second apparent feature relating to the outcomes is that governance systems have been strengthened. Most of Korea's regional energy plans are not embedded in governance, and they lack necessary cooperative and participatory measures (Lee et al., 2014). In this respect, the private partnership and local-based government systems in Seoul could be used as a governance model to establish energy plans for other local governments and enable them to be more efficient.

The third factor is the consideration of fuel poverty, which was not considered in OLNPP 1 but was considered in OLNPP 2. The Seoul city intensified policies for energy-poor citizens (citizens lack sufficient energy supply because of their economic and social situations) by supporting energy tariffs and providing practical welfare benefits. These policies were considered when energy welfare became important to policy assignments.

Confucian Reflexivity and Deliberativeness in Local Energy Governance

In the light of Confucian perspectives, three radical questions can be proposed: what was important, what is important, and what will be important in the future. To respond to these questions and pursue the correct path, the time frames of past, present, and future are used (溫故而知新; rethinking the old and knowing the new, The Analects of Confucius, 2:11). Confucian self-discipline starts from seeking the veritable "I", and it is necessary to understand one's own history to begin to understand oneself. In this respect, the starting point in local energy governance is to understand past problems, and these problems were deeply related to decisions by individuals who did not have self-knowledge and who ignored problems of energy inequality and injustice. Throughout history, central government oriented energy policies were effective for attaining the goal of mass electricity production; however, regional discrimination between metropolitan cities (such as Seoul or Busan) and rural areas with low populations such as Gori or Wolsung was aggravated throughout the period of the "*Miracle of Han River (Korean rapid economic growth)*". The well-being of people and the environment were sacrificed in specific regions; although these sacrifices were inevitable in the process of producing energy, they were camouflaged in the name of "developing the nation". Unconsciously and without provocation or questioning, individuals accepted central government energy dogma.

The problem of the present is different from that of the past because individuals can ask "what is problematic, and why it matters". For many years, people who demonstrated against the problems of nuclear energy advanced "Not in my backyard" (NIMBY) principle. However, in a contemporary society, the issue of energy resource production and infrastructural installation is beyond the NIMBY phenomenon. For example, citizens of Seoul are not direct victims of environmental pollution and other inconvenience from energy infrastructure, but they are conscious and feel anxious about energy injustice between the regions. Conscious individuals

can positively affect and strengthen connectivity between themselves and others. In the current transitional phase from hard to soft energy, the characteristics of both systems are evident.

Based on learning from past experiences and an examination of the present situation, it is possible to consider future directions. If all things are considered to be related to each other and to have a symbiotic relationship, pursuing energy justice is not only for the benefit of humans but for the earth and its resources. It is considered that future energy governance using the soft energy pathway will produce optimal and balanced energy via a decentralized and renewable-based energy system that causes minimal harm to nature and eventually enables sustainable energy production for all human beings.

Table 1 below suggests the summary of the Confucian reflexivity and deliberativeness in local energy governance. Since the Ansell and Gash model offers the components of collaborative governance in details, the model lacks explaining the unique public administration culture of Korea, and it also lacks offering a comprehensive understanding of policy direction: the ultimate policy goal. Hence, Table 1 below shows a new perspective of merging the existent collaborative governance and the new component derived from Confucianism, which was indeed crucial for analyzing the Korean case of local energy policy.

Table 1

Confucian Reflexivity and Deliberativeness in Local Energy Governance

Time Frame	溫故而知新 (Rethinking the old, and cultivating the new)		
	Past	Present	Future
Reflexive Individual	Unconscious and ignorant	-Conscious and observing -Regarding the conditions of others	-Will of settlement -Regarding symbiotic relationship
Governance Structure	-Closed-governance structure driven by central government -Aggravation of regional inequality and injustice with dogma	-Public-private partnership -Connected Governance -Intervention of Locals	-Extended Governance -Pursuing energy justice with regional balance -Inclusiveness of diverse and hetero networks
Relationship with Collaboration	-Absence of collaboration	-Creation of intermediate governance model (e.g., OLNPP) -Promoting participation -Feed-back	-Co-evolution and integration of collaboration and reflexivity -Continuous feed-back based on learning and practicing
Energy Path and Its Characteristics	-Hard energy system (central government driven, mass production, nuclear and coal thermal energy focused)	-Transition process (combination of hard energy system and soft energy system)	-Soft energy system (community based, decentralization, democracy and renewable energy focused)

Concluding Remark

Our study analyzed Seoul's energy policy, OLNPP 1 & 2, through the lens of collaborative governance and Confucianism. We evaluated each step of the energy policy process with the four components of the Ansell and Gash's model: starting conditions, institutional design & leadership, collaborative process, and outcomes. As a result, overall, Seoul's energy policy process was well structured with the collaborative governance model. In addition, we borrowed from basic Confucian thoughts, which the Ansell and Gash's model cannot offer. Confucian deliberativeness and reflexivity are unique and original components of the Korean governance system. They offer a comprehensive explanation for the setting of ultimate policy goals, and the leadership, collaboration, and the design of institutions.

The OLNPP Initiative was significant because, through it, the Seoul metropolitan government proposed a regional energy governance model that improved existing systems and projects. Furthermore, local energy governance has provided appropriate energy policy for the region and facilitated on-going searches for solutions to structural problems relating to energy supply and demand, as well as energy justice. In this sense, the role of the local government has become more crucial (de Leeuw & Groenleer, 2018) and, in this time of energy transition, locally oriented energy governance is needed to reinforce social cohesion (Kyriakopoulos & Arabatzis, 2016). Although Korean law (i.e., the *Energy Act*) envisages the importance of locally oriented energy policies, the actualization of the policy has not been manifested in legislation⁴. The role of local government is to establish an institutional regime that helps maintain the local energy governance structure and promote its evolution.

This case analysis asks: Why did Seoul choose this initiative? Seoul is Korea's capital city, and undesirable facilities such as nuclear power plants cannot be constructed within its bounds. However, Seoul's citizens chose the OLNPP initiatives while bearing in mind "the pain of others." This seemingly irrational choice among Seoul's citizenry appears to run counter to common sense. To help elucidate their decision, we turned to Confucianism, which we felt would provide us with comprehensive answers.

It is undeniable that the leadership of Seoul's Mayor influenced the implementation of the OLNPP initiative; this effect was not seen in other regions. However, even for local governments lacking such leadership, Seoul's type of energy governance highlighted problems inherent in energy policies, chiefly by *asking what was important, what is important, and what will be important in the future*. By adjusting policies so that they align with the local situation and leverage citizens' participation, policy capacity can be extended and a concrete energy transition program can be determined.

⁴ The Energy Act in Korea requires each local government to re-establish a local energy plan every five years, but the quality of the regional energy plan differs from region to region and lacks correspondence with the national energy plan (The Energy Act Art. 7).

The OLNPP initiative provided Seoul with the opportunity and potential to transform its energy system. Although Seoul-type feed-in tariffs and mini solar power projects are still in experimental stages, these individual projects are being led by both the local government and citizens. Perhaps more importantly, they show promise in achieving energy independence and providing a pathway to energy decentralization—both of which should be local and collective, and based on participation (Hoffman et al., 2013).

The road to employing “soft” energy is long, and problems such as regional energy inequalities, production–consumption disparities, and the establishment of effective regional energy policies comprise a well-known energy trilemma that many societies face today (Gunningham 2013; Holley & Lecavalier, 2017). Indeed, these are the largest obstacles to the establishment of regional energy policies led by local governments (Lim, 2019). The case of the OLNPP shows that a collaborative governance model can potentially drive energy transition. However, this dream has not yet been realized; on the contrary, it has been criticized as being too difficult for other local governments to apply, given their limited policy competencies and structural problems. However, Seoul’s efforts mark the start of a shift towards a soft energy system that will eventually leverage a nationwide symbiotic relationship between humans and the environment and foster their mutual evolution.

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