

# Recommendations to Seoul Striving to be an Energy Service Autonomous City

Seoul International Energy Advisory Council (SIEAC) Seoul, 13 November 2013

## Preamble

The Members of the Seoul International Energy Advisory Council (SIEAC) are conscious about the complexity of the administration and governance of a megacity like Seoul. SIEAC Members wish to express their appreciation for the efforts already deployed by the current Seoul Metropolitan Government. They also wish to stress that the recommendations hereunder are only a preliminary set of recommendations as it takes time to fully understand the needs, opportunities and challenges of such a large organization of citizens, industries, services and cultural identities.

## Introduction

Megacities, which represent a large share of global energy consumption and thus of global greenhouse gas emissions, contribute significantly to accelerated climate change of today. Hence, for solving the climate issue cities have to play a crucial role and major greenhouse gas mitigation efforts have to take place in urban agglomerations. In addition, cities are responsible for the protection of its citizens' health and safety from disasters such as heavy rains and storms, cold and heat waves caused by climate change, and the provision of reliable, equitable energy services and a clean environment. As energy consumption not only induces greenhouse gas emissions, but often triggers substantial other environmental problems as well (e.g. air pollution, resource depletion), there are many reasons to limit future energy demand.

Seoul, being a megacity with over ten million people, is not exempt from such responsibilities, since it represents less than one percent of South Korea's total land surface of the country, but is home to over one fifth of its population. Per capita electricity consumption of the commercial and residential sector vastly exceeds the national average. However, given the low energy self-sufficiency level of Seoul standing at a mere 3 percent as of 2011, Seoul faces a permanent risk of continued interruption of crucial energy services.

On the other hand, Seoul represents close to one quarter of the national Gross Domestic Product (GDP) and is the center of economic, social, cultural and political activities of South Korea. It has abundant creativity, knowledge and infrastructure to develop and implement solutions, and thus sufficient potential to create innovative opportunities for making positive changes.

## Recommendations

Seoul has the potential to become a model for sustainable development for other cities around the world. In order to make Seoul a climate-friendly, sustainable and energy-efficient city that ensures welfare and well-being of citizens, we, the members of the Seoul International Energy Advisory Council, advise the City of Seoul:

1. To identify service demand and to make an explicit goal of providing all its citizens of Seoul with intelligent energy services-affordable, sustainable, reliable and user-friendly. People need service security for cooked food, heating and cooling, lighting, mobility, communication and motive force not kilowatt hours, barrels of oil, or cubic meters of gas.
2. To assess the establishment of an institution that will have the responsibility of delivering efficient and effective energy services to citizens and businesses.



3. To enhance its capacity to develop and implement innovative financing and implementation solutions to minimize the waste of energy and increase the efficiency of energy services delivery. Korea has a vibrant Energy Service Company (ESCO) industry that needs to be engaged by Seoul to not only identify, but implement and fund energy waste and efficiency projects with private sector funds.

4. To provide administrative and financial support for diverse, distributed renewable energy supplies, networked in microgrids-universities are a good place to start- and promote renewable energy cooperatives and other innovative schemes. Particularly, there is a need for suitable system solutions comprising tailor made combinations of renewable energy based solutions and energy efficiency measures.

5. To maximize integrated energy solutions to enhance energy service self-sufficiency of buildings, facilities and green infrastructure in order to reduce their dependency on external energy and water supply and minimize the risks of supply disruptions in case of emergencies.

6. To develop urban solutions that minimize transportation needs and reduce distances through the revitalization and development of small, decentralized energy, water, waste and multiple other services, businesses and industry and the pro-active encouragement of walking and biking, as well as the development of affordable, renewable energy based public transport.

7. To lead the world by establishing participatory governance that involves citizens, educators, designers, businesses and expert groups from home and abroad in energy policy design and implementation; and to assure that Seoul citizens shall be proud of their city's achievements, feel better, be healthier, and be even friendlier to their fellow citizens and the city's visitors.











8. To develop innovative and persuasive energy policy instruments and tools in an effort to overcome the looming energy crisis, contribute to climate change mitigation, and enhance energy justice.

9. To strengthen its cooperative network with the national government and other cities, inside and outside the country, in order to share and expand the results of its innovative energy policy and find common solutions to megacities' common challenges.

We, the members of Seoul International Energy Advisory Council, commit ourselves to providing advice and support, to the best of our knowledge and experience, in order for Seoul to implement the steps stated above, so that it opens up a sustainable energy future and makes transition to an energy service-autonomous city, not only for Seoul but also as a model for other cities around the world.

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