Summary of Plenary 2: Low-Carbon Transport and Energy for Sustainable Cities

Chair – Mr. Pradeep Monga, Director, Department of Energy, UNIDO

- Explained the challenges and opportunities in cities. Cities also benefit from the role of industries in local economic development through job creation and income generation. Industry offers solutions to the cities
- Introduced UNIDO strategy for sustainable cities and UNIDO's development interventions. UNIDO's work on sustainable cities to design cities as hubs of clean energy innovation, low-carbon industrialization and climate action also supports the Sustainable Development Agenda.
- UNIDO through its global forums and technical cooperation projects takes a lead role in fostering clean energy innovation within cities.
- Explained Global Platform for Sustainable Cities. It is a part of an initiative funded by the Global Environment Facility (GEF) that is expected to mobilize up to $1.5 billion over the next years for urban sustainability programs in 11 developing countries. UNIDO is providing technical assistance to selected cities in India, Malaysia, Senegal and Cote d'Ivoire.
- UNIDO aims to promote sustainable transportation that supports the inclusive and sustainable industrial development of its member states. These interventions will focus on promoting higher efficiency, low-carbon production throughout the vehicle manufacturing supply chain, fostering enabling policy frameworks, building and strengthening local capacities and enhancing knowledge transfer and innovation.

Mr. Radmir Ildarovich Beliaev, Head of the Division of Economic Development, Naberezhnye Chelny

- Explained basic information about Nabereahnye Chelny, which is a city in Russia, in the north-eastern part of Tatarstan.
- Stressed that industry is key productive engine for a city
- Naberezhnye Chelny implemented energy management systems (EnMS) as an energy efficient measure. The project objectives are GHG emissions reduction, energy efficiency increase in industrial and municipal enterprises, energy savings, sustainable development, organizational improvements. By doing that, the expected outcome is 5-7% savings of energy resources achieved by no- and low-cost measures for operational control and better integration of industry in city energy planning and programmes.

Ms. Xueman Wang, Coordinator, Cities and Climate Change Global Practice, World Bank

- Challenges facing cities is to adopt a holistic approach to urban planning and financing.
- Introduced Global Platform for sustainable cities. It is a knowledge platform to support cities in partnership with GEF Agencies, Development banks, UN organizations, city network, think tanks and local institutions
- Stressed the importance of global platform to have urban sustainable framework

Ms. Tonilyn Lim, Industrial Development Officer, Department of Energy, UNIDO

- Introduced three thematic pillars for sustainable cities: climate resilient industry hosted by cities; climate smart city service delivery; and value chain development for sustainable cities
- How do we make city services more efficient? Improving energy resources' use. Introduction of more renewables in the system.
- UNIDO aims to promote sustainable transportation that supports the inclusive and sustainable industrial development of its member states. These interventions will focus on promoting higher efficiency, low-carbon production throughout the vehicle manufacturing supply chain, fostering enabling policy frameworks, building and strengthening local capacities and enhancing knowledge transfer and innovation.
- Introduced several projects as case studies.
- In Malaysia, sustainable city development is being conducted, including technology on solar PV based vehicle charging.
- As for Urban Air Quality, in Abidjan, various initiatives are being implemented to improve urban air quality.
- In Senegal, resource efficiency and renewable energy technology in industrial park is being initiated.

Mr. Carel Petrus Snyman, Senior Manager, Cleaner Mobility Programme, South African National Energy Development Institute

- Explained the source of energy and how much energy we use for mobility
- Explained the current situation of energy use focusing on mobility. Warned about the influence of pollution.
- Introduced the various example of mobility to be energy efficient. Mobility for life should be efficient, right-sized, zero emission, available and accessible, integrated, and interconnected mix of options. Also, we need to 'right-size' our mobility to maximize the use of solar energy

Mr. Datuk Nik A. Faizul Bin Abd. Mallek, Managing Director, MIGHT Technology Nurturing

- For new areas, it is key to connect the ecosystem of market, technology and funding
- Smart transportation for Melaka – how to connect planning, infrastructure, actual mobility and connectivity
- Green mobility industry implementation, primarily focused on buses – crucial to connect other organizations.
- Solar PV Industry implementation – SMEs focus on balance system

Ms. Mo Jung-youn, Associate Research Fellow, Korea Institute for Industrial Economics and Trade

- Explained the effect of energy storage system in electricity market. The energy storage system (ESS) is accomplished by devices that store electricity to perform useful processes at a peak time/ can help to maintain electricity network stability and raise efficiency of energy supply.
- Advantages of ESS: key component for low carbon generation that can enhance the

efficiency of power system and reduce the cost of upgrading transmission network

- Status of ESS Industry in Korea – market share of Korea's Lithium-ion Batteries at third quarter in 2014: close to 50%. In case of Lithium-ion Batteries and Capacitor, the mass production is being implemented in Korea. Other technologies are in the development stage.
- The Korean government should promote the ESS industry development through subsidy and tax credit policy

Mr. Marc Wolfram, Associate Professor, Urban Sustainability Transitions Lab, Yonsei University

- We need to pay attention to civil society for a social-technical transition
- Baseline knowledge is critical to creating smart cities. Where do we stand as cities? What are the systems that are currently available? Clear emphasis on the role of sciences.
- Radical change is needed. Incremental efficiency and fundamental changes.
- Industry government science collaboration critical to generate framework for change. "Do we have that?" is the question we need to ask in cities.
- Be experimental! Cities need practical experimentation to develop solutions required in the future.
- How should we start with this task?