Day / Track:14 June / Track III: Modernizing Energy Industry 09.00-12.30

Panel Discussion: **Energy and materials from wastes: Application of the United Nations Framework Classification (UNFC) for sustainable management of anthropogenic resources**

Organizers: UNECE, IAEA

Target group: Open to all participants

Waste hierarchy principles adopted by many countries consider disposal of wastes as the last and least preferred option. Sustainable Development Goal #12 calls for substantial reduction of waste generation through prevention, reduction, recycling and reuse. Studies worldwide have demonstrated that a number of valuable materials and energy can be recovered from wastes. Waste to energy technologies have been employed worldwide over the past few decades to process and reduce wastes with significant success. The United Nations Framework Classification for Resources (UNFC) considers Anthropogenic Resources as major contributors to the circular economy and can be a useful tool for assessment and management of projects that create value from wastes.

Guiding questions:

- How are the waste hierarchy principles and SDGs #12 relevant to the objective of waste generation?
- How can materials and energy that could be economically recovered from wastes be important for the sustainability of the planet?
- Are Waste to Energy (WTE) technologies and experiences important to meet the SDG #12 targets?
- What are the social acceptance and communications challenges in projects that recover energy and materials from wastes?
- How important are UNFC and its specifications for anthropogenic resources in meeting the challenges in achieving sustainable development?

Time	Content	Resource person
Energy and materials from wastes: Application of United Nations Framework Classification (UNFC) for sustainable management of anthropogenic resources		
09.00-09.10	Welcome, Introductions	Co-Chairs - Mr. David MacDonald (BP and Chair, UNECE Expert Group on Resource Classification); Ms Charlotte Griffiths (UNECE)
09.10-09.30	Workshop objectives and Overview of UNFC as a sustainable management tool for all resources	Mr. David MacDonald
09.30-09.50	The role of waste to energy and resources in a circular economy society	Prof. A. C. (Thanos) Bourtsalas (Earth Engineering Center, Columbia University)
09.50-10.10	Uranium and other valuable material recovery from polymetallic ores and wastes	Mr. Martin Fairclough (IAEA)
10.10-10.20	Discussions	All participants
10.30-11.00	Coffee Break	
11.00-11.20	Integrated waste water treatment to bio energy and organic fertilizer production	Mr. Alan Lau (Anglo Euro Developers (S) Ltd)
11.20-11.40	Waste to energy and social acceptance	Mr. SHAO Zheru (Everbright Environmental Protection Technology and Equipment (Changzhou) Limited)
11.40-12.00	Managing efficient recovery of materials and energy from wastes: UNFC specifications and guidelines	Mr. Hari Tulsidas (UNECE)
12.00-12.30	Discussions	All participants