

Session 5: Peaceful Use of Nuclear Energy

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Summary

In this panel, 4 panelists touched on the various aspect for the peaceful use of nuclear energy. The first speaker, Ms. Sharon Squassoni, gave an overview of current nuclear energy expansion with statistics and pointed out the three main drivers of the expansion; electricity growth, climate change and energy security. But she also raise some questions to these drivers as follows. Electricity growth is usually connected to GDP growth but the uncertainty of forecast always exists. She also mentioned five major challenges which the peaceful use of nuclear energy is facing; cost, safety, waste, proliferation and security. She concluded her presentation with stating the necessity of improvement of domestic / international nuclear governance and needs for regional / international cooperation for the safe, secure and proliferation resistant nuclear energy.

Dr. Trevor Findlay followed Ms. Squassoni with the global governance of nuclear energy. He defined the components of governance are treaties, agreements, institutional arrangements and so on. There are three categories which considered important to be strengthened global governance; safety, security and nonproliferation. All of three are interrelated and essential for ensuring nuclear energy revival. He pointed out the tendency of strengthening of global governance as crisis driven and claimed that the Fukushima accident must be the chance to improve global governance on safety, such as creating mandatory system for safety check.

Thirdly, Mr. Leonard Spector focused on the rules for the nuclear supply which have to be reinforced and the methodology to bring that change. He listed up five areas which we need improvement; nonproliferation controls, safety, security, liability and nonproliferation

credentials. There are two ways to achieve improvement. One is hard and strict approach, such as require major nuclear enterprises to implement these requirements as rules for export. The other one is soft approach, such as gently encouraging our clients to meet the entire requirements. For the conclusion, he emphasized the importance of international consensus on major rules among core groups to implement both approaches.

The last speaker was Tom LaTourrette and his topic was spent fuel management. At first he briefly overviewed the history of US disposal of nuclear waste and claimed that political and social decision is much more important than technical difference to choose the option for spent fuel management. He listed up four options; status-quo, two stage strategy (centralized storage and restart of site selection process), postpone disposal until advanced fuel cycle technologies are developed, and wait and see. The political decision should be done with the priority among several key social aspects, such as quickness of solution, confidence to the governmental decision making process. There might be different value on waste and different types of approach exist.

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