4. A Study on Zero Energy Buildings (ZEBs)

- Developments in other Countries and Feasibility -

Masaya Iwashita, Masafumi Moteki

Global efforts are now being made to realize zero energy buildings (ZEBs) that meet at the premises the energy requirements for the building. Each country developed a road map of its own. The road maps developed by different countries were summarized and the concepts of ZEB in Japan and other countries were considered based on the road maps. Models were developed of standard present and future office buildings in Japan. The number of stories at which ZEB could be achieved was examined in each building model. It was concluded that in the case where the energy requirement for the building was met through power generation using solar panels installed on the roof, a three-story building could be realized in the year when the goal is achieved.

Keywords: ZEB, energy saving, energy creation, simulation