SESSION VV1: Role of High-Tc Superconductors in the Future Society
Chair: Claudia Cantoni
Tuesday Morning, April 26, 2011
Room 2020 (Moscone West)

8:30 AM *VV1.1
SuperCities, SuperSuburbs and SuperGrids: Superconducting Materials Challenges Confronting the Energy Society of the Future. Paul M. Grant, W2AGZ Technologies, San Jose, California.

This year, 2011, celebrates the 100th anniversary of the discovery of superconductivity, as well as the quarter century since the emergence of "high temperature" materials in 1986. Post-discovery hopes in the decades following each forecast significant applications of superconductivity to electric power would ensue, and, indeed, dozens of successful prototype demonstrations of rotating machinery, cables and conditioning equipment have taken place from the 1960s to the present. Yet, massive application to the power industry has yet to take place or even be inserted into utility long-range planning cycles. Thus, this talk will address the role of superconductivity in a revolutionary future energy society based on its symbiosis with nuclear, hydrogen and non-eco-invasive renewable, especially the impact new superconducting materials, more robust and with higher transition temperatures, might have to realize this vision.