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Comments on Measuring Economic Performance by Harold E. Marshall

REFERENCE: Lee, B. Lum, "Comments on 'Measuring Economic Performance' by Harold E. Marshall", *ASTM STP 1029, Performance of Buildings and Serviceability of Facilities*, Gerald Davis and Francis T. Ventre, eds., American Society for Testing and Materials, Philadelphia, 1990.

KEY WORDS: uncertainty and risk exposure

Harold Marshall has written a comprehensive paper that summarizes the traditional methods for measuring the economic performance of building technologies along with approaches to account for uncertainty and risk. However, there are a number of problems and issues associated with these methods which prohibit their ease of use. Marshall has cited some of these problems and issues in his paper. But it may be worthwhile for the Panel to discuss them in greater depth so that the audience will have a better understanding of these problems and issues, together with some practical approaches as to how they are being dealt with today. Examples of these problems and issues are:

- Complexity in the use of these methods.
- Time and effort required in the use of their use.
- Difficulty in developing or obtaining comparative data.
- Uncertainty in the long range assumptions used.

Mr. Marshall is right on target in stating that more research is needed in the area of treating uncertainty and risk exposure associated with building investments. Another area of need is development of reliable data bases and guidelines for operational and maintenance costs for buildings and systems.

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