

## Preface

The necessity of energy efficiency is agreed on by any person in any country as far as that person is aware of the concern about depleting natural resources and the effect of energy consumption on the environment. However, because energy efficiency covers very broad issues and various measures to deal with it, discussion on the promotion of energy efficiency may only result in the list of something-for-everyone that is too general for practical application.

Since every part of the energy supply and demand system comprises technologies, energy efficiency cannot be achieved without any kind of technologies, neither can any energy efficiency measure be successful without considering the effect of energy efficiency on human activities. Among various types of technologies related to energy efficiency, those that serve as the interface with human activities play the most important role. Thus, we assume that energy management system (EMS) technologies, which help visualise, monitor, and control the energy supply and demand, can be a cornerstone in this context.

Needless to say, the installation of EMS itself is not simply the solution because it is a rather-costly investment and it cannot be justified without an analysis of the expected benefit, i.e. energy-efficiency potential by deploying EMS. Close analysis of the energy efficiency potential, from both macro and micro perspectives, should be made in confirming its effectiveness.

The last but not the least thing to consider is the institutional framework. In general, costly investment, even when its economic benefit is expected in the end, is apt to be avoided if it takes time to recover cost. This is more conspicuous in a market that is not mature enough for the price mechanism to work perfectly. To mitigate this incompleteness, appropriate policy intervention may be needed to help promote EMS technologies.

The study aims to provide suggestions for policy planners in the East Asia Summit region on possible ways to promote EMS technologies. We hope this study can bring new insights for those involved in this issue.

Yasushi Iida

On behalf of the Study Team

August 2016