

Socio-economic Research Center

Brief Overview

The Socio-Economic Research Center (SERC), through in-depth analyses of issues crucial to the sustainable development of society, proposes technological and policy options to improve and solve those issues. Also, by assessing the advantages and disadvantages of each option from a broad perspective encompassing social, economic, political and cultural aspects, it aims at providing useful information for management of the electric utility industry and public policy planning.

Achievements by Research Theme

Analysis and Support of Electric Power Business

[Objectives]

To provide comprehensive information, know-how and models, etc. which are necessary for the planning and execution of a business strategy enabling electricity companies to precisely and quickly respond to a competitive business environment.

[Principal Results]

- A questionnaire survey was conducted with European and American global enterprises on their diverse CSR approaches and revealed that some CSR approaches have had a positive impact on the business performance. [Y08012]
- A study on the capital structure and policy for shareholder return of domestic electricity companies revealed that foreign shareholders have a strong preference for smaller liabilities compared to those investing in the manufacturing industry and that greater emphasis is placed on dividends to return shareholders rather than buy-back of the shares. [Y08016]
- A field interview survey was conducted on the investment plan of construction work for the transmission and distribution facilities of European and American transmission companies and found that such efforts to promote human capabilities are necessary as the development of skilful judgement and better inter-departmental communication are made in tandem with technical computations, etc. to ensure the smooth execution of asset management. [Y08043]

Analysis of Economic and Social Trends Under Decentralisation

[Objectives]

Aiming at providing critical information especially on the change in regional economic structure resulted from the ongoing reform of national and local fiscal institution for every local electric power company, the scientific analysis was conducted to evaluate the policy impact from economic viewpoint.

[Principal Results]

- The impact of fiscal reform on the steady state of the Japanese economy was estimated using the macro dynamic general equilibrium model. The results show that a 1% increase in the consumption tax rate will reduce the real GDP by 0.52%. It is also suggested that the Japanese economy will achieve a real mean annual growth rate of 1.1% up to the year 2010; however, the fiscal primary balance will not turn into the surplus within this period. [Y08052]
- Based on the analytical simulation of the local allocation tax system reform using spatial computable general equilibrium model, it is clarified that the compensation by national government through local allocation tax system which aims at the financial adjustment and the revenue balancing across the local governments can lead to a loss in the economic welfare (Fig. 1) and its implementation should hence be abolished. [Y08049]

Social Trust and Communication Measures

[Objectives]

Through a citizen's awareness survey and other means, to analyse the impacts of communication activities on the social trust in organizations and establish analysis and evaluation methods for risk communication techniques with a view to building social trust in the electric power industry and a better relationship between society and the electric power industry.

[Principal Results]

- The findings of a nationwide survey on energy and environmental issues indicate that this is strong interest as well as concern regarding global warming among the public and that there is a significant increase compared to 2003 of the ratio of people who are actually practicing energy saving and environmental preservation (Fig. 2). [Y08047]
- A survey on trust in organizations and the contributing factors was conducted. The findings suggest that electricity companies enjoy a high level of trust after car manufacturers and the reasons for this are the social value of the electricity business and the manage-

ment stability of these companies. [Y08040]

- Based on the findings of a survey featuring the general public on the evaluation of information conveyed to them, proposals were made for a draft message to facilitate people's understanding of biomass power generation and an information dissemination method to enhance people's understanding of and trust in radiation protection and earthquake-resistance measures at (nuclear) power stations. [Y08030]

Energy Technology Assessment

[Objectives]

Through developing methodologies and tools to evaluate power and energy technologies as the essential base for the electric power industry, the project intends to contribute to establishing a technology system paradigm to achieve a desirable future of energy supply and demand structure.

[Principal Results]

- Using continuous measurement data over a period of three years on the electricity and hot water demand of ordinary households in the Tokyo Metropolitan Area, energy demand characteristics of the residential sector were analyzed in detail, such as the impacts of different family structures and patterns of possession and usage of appliances on the sensitivity of the demand to ambient temperature. [Y08054]
- Assuming the case where the Japan's CO₂ emission is to be halved by 2050, an optimisation model analysis was conducted to reveal feasible technological options, such as the electrification, hydrogen use with fuel cell and biomass energy utilisation, and associated energy supply cost. [Y08013]

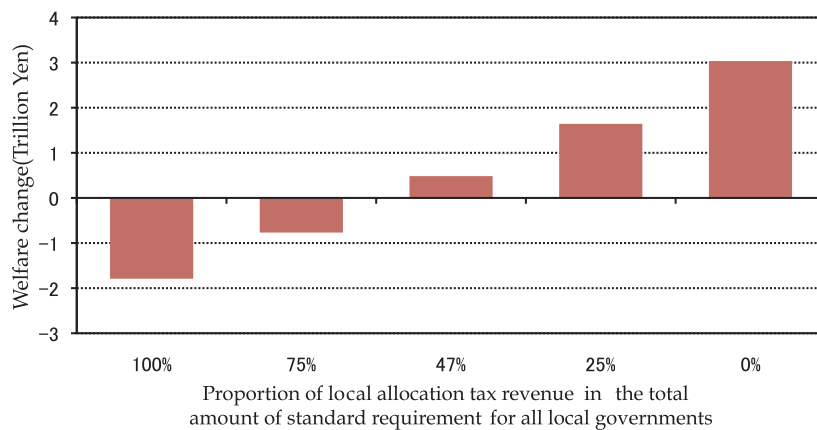


Fig.1 Welfare Change Resulted from a Variation in the Local Allocation Tax Revenue

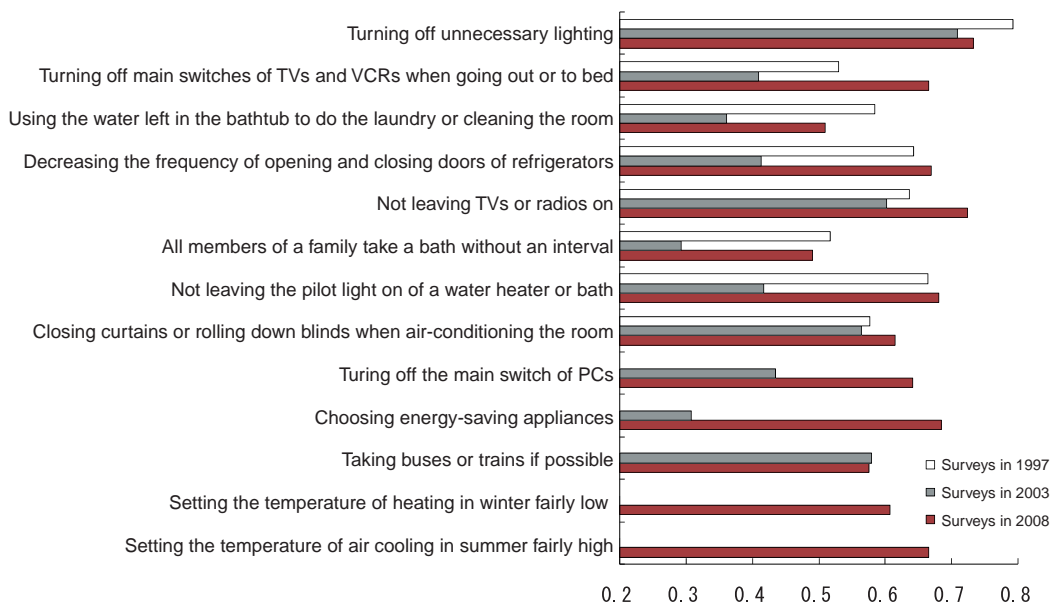


Fig.2 Response ratios of energy conservation actions in the surveys in 1997, 2003, and 2008.