

Energy use and prospects of energy savings

How will energy use develop and what are the prospects of energy saving measures?

Speaker

Dr. Ir. P. G.M. Boonekamp

Energy research Centre of the Netherlands (ECN)

Abstract

Since the second oil crisis (1980) energy savings have contributed worldwide to limiting the pressure on fossil fuel resources, mitigating environmental effects such as greenhouse gases and easing the burden of high energy prices.

However, in recent years the rate of savings has decreased, despite ample opportunities to improve energy efficiency. Probable causes are the lower energy prices (except in 2008) and a lack of effective government policies to stimulate savings. Another cause could be the invisibility of savings, which actually constitute “energy carriers that have not been used”. Therefore, it is important to have methods that can prove realised energy savings. Considerable effort, also by EU and IEA, is put into the monitoring of energy savings and the evaluation of policies on savings.

With these methods past and future savings have been calculated. The effect of renewed efforts to raise the savings rate, both in the Netherlands (program “Clean & Efficient”) and the EU, is shown. Also the effect of savings, together with economic growth and structural changes, on future energy demand will be shown.

The results indicate that up to 2020 savings can be more important than the increased use of renewable energy sources or switches between primary energy sources.

About the speaker

Piet G.M. Boonekamp was born in Pynacker on September 23th, 1948. After attending the Higher Technical School in The Hague and performing military service he continued his scientific education at the Technical University of Eindhoven, in the faculty of Electrical Engineering. He finished his study in 1977 with a thesis on “Developing a linear programming model of the Dutch energy supply system”. He worked temporarily at the university in a research project on “long term relationship between energy consumption and production in industrial sectors”. In 1978 he joined the just established Energy Study Centre of ECN, which should advise government on future energy policy matters. During his years at ECN he worked on the following subjects:

- Energy model building at national level, cogeneration and end-use sectors (households).
- Execution of National Energy Outlook, in support of energy and environmental policy makers.
- Electricity supply: capacity planning, load dispatch, load-curves, industrial cogeneration and costs of base-load electricity production.
- Energy demand: savings owing to policy measures with bottom-up household simulation model.
- Monitoring and evaluation of energy and emission trends, with emphasis on energy savings, both at national and international level.

Next to his work in projects he was, for a number of years, coordinator of unit activities in the field of national energy policy and later group leader of the section National energy policy. Since 2001 he is coordinator of Platform Monitoring Energy savings (PME), consisting of PBL, SenterNovem, CBS and ECN, which regularly provides figures about realised energy savings in the Netherlands. Since 2003 he is member of the Technical Coordination committee of the international Odyssee project on energy indicators. Since 2006 he chairs the national Mirror Committee, introduced by NEN to coordinate the Dutch contribution to international standardization issues in the field of Energy Management. Further on, he participates in the national Discussion Platform on Energy issues (Bezinningsgroep Energie).