

2. Toru Mitsunaga X-ray thin-film measurement techniques. Out-of-plane diffraction measurements //Rigaku journal-2009.-Vol.25.-№1.-P.10-15.

## ENERGY EFFICIENCY DEVELOPMENT

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The scientists of United National Industrial Development Organizations (Africa) state that «Energy efficiency is understood to mean the utilization of energy in the most cost effective manner to carry out a manufacturing process or provide a service, whereby energy waste is minimized and the overall consumption of primary energy resources is reduced. In other words, energy efficient practices or systems will seek to use less energy while conducting any energy-dependent activity: at the same time, the corresponding (negative) environmental impacts of energy consumption are minimized».

The impacts of energy use affect all of us and consequently, we should all be concerned about how to use energy more efficiently. However, the main bodies responsible for defining national approaches to energy efficiency are typically government agencies, whose responsibilities will usually include:

1. Enacting legislation which relate to energy efficiency if required, including defining an oversight role for energy regulators, when relevant.
2. Deciding the state budget for promoting and conducting energy efficiency activities and programmes for the general public, including tax or other incentives when appropriate.
3. Promoting energy awareness and disseminating useful information on energy efficiency measures and on recommended procedures for all sectors of the economy.
4. Allocating the budget and carrying out energy efficiency programmes in relation to government-owned assets, e.g. government buildings, vehicle fleets. These actions will serve as examples of good practices for others to follow.

Renewable energy technologies tend to have a higher profile than energy efficiency actions. This is mainly for the obvious reason that they are more visible as new installations and perceived as more «cutting-edge» technologies. This occurs even though they often have higher initial capital costs than energy efficiency measures (and may have less favorable operating costs too). However, one of the benefits of adopting renewables is the ensuing increase in awareness of energy production and consumption in the owner of the installation and also often with the public who can see or might interact with the technology.

This increased awareness of energy consumption may be used to stimulate awareness of energy efficiency by introducing energy efficiency measures simultaneously with a new renewable energy installation.