

abstract

The study of “Measures to Promote and Supervise Green High-Rise Buildings for Saving Electrical Energy” has an aim to examine what should be appropriate measures for promoting and supervising the construction of green high-rise buildings to save electrical energy. Generally, a building, particularly a high-rise building, has many years of life and consumes a large amount of electricity, which becomes a part of current energy crisis. For the solution, should the building construction follow green building practice, it would decrease energy consumption to the lower level than normal use and prevent environment from being affected. This is because green building practice is the way of construction that takes account of energy and environment at every stage as from pre-construction, construction, and usage to destruction, reconstruction, and modification of buildings.

The thesis considered two laws concerning to the use of electricity in high-rise buildings; the law on building control and the law on promotion of energy preservation whether or not there are any provisions encouraging the building constructions to follow the green building practice. It is found that the law on promotion of energy preservation merely intends to promote and build conscious to the importance of saving energy. There is no actual legal enforcement of such law. In the law on building control, there is no provision stipulating that standards of energy preservation in buildings according to the law on promotion of energy preservation shall be applied to the buildings. As a result, the standards for energy saving stipulated in the law on promotion of energy preservation can not be really enforced. Furthermore, in this thesis, the rules to consider whether buildings are in pursuant to green building practice were examined in terms of appropriation.

Through the study, the author suggests that relevant departments; Department of Public Works and Town and Country Planning, Ministry of Interior and Department of Alternative Energy Development and Efficiency, Ministry of Energy, should coordinate to enact subordinate legislation to effectively and efficiently enforce the standards of energy preservation in buildings under the law on promotion of energy preservation. If such standards do not become enforceable laws, saving energy is not considered in the building construction. That is, because the current building construction must mainly

comply with the law on building control. In the future, if a building owner intends to fix its building to be in accordance with green building practice, he has to bear the increased expenses. Hence, in the meantime where the law is absent, the government should widely promote and disseminate the standards of energy preservation in buildings to public instead of only to those in the construction field as currently occurred. The government should also initiate incentive measure. The most effective measure giving concrete result to building owners is economic one both in the form of increasing tax incentive (tax deduction and tax exemption) and decreasing tax incentive (taxation).

In addition to making the law enforceable, because the laws governing energy consumption in the building are overlap between the law on building control and the law on promotion of energy preservation, in some cases it is difficult for officials to apply them. It also causes confusion to the person who is subject to those laws. As such, relevant departments should consider the amendment of the laws that are overlapping for more clarification.

Furthermore, the provisions on energy preservation contain subject matters of technique, design, and engineering computation which are changeable. It is difficult to amend the laws to follow up such advance technology, making them become backward and be unable to apply to the real situation. Those subject matters should therefore be separated from the main substance of the laws in which only ways of practice and minimum requirements in design should be stipulated. The law should provide that experts in particular fields have power to inspect buildings whether or not they comply with the rules prescribed in the laws. Regarding to an authority responsible for stipulation of rules and inspection in accordance with green building standards, it should be established as the non-state organization under State supervision in order to be flexible for following up technology and not fettered by bureaucracy. In addition, such form of organization may encourage more experts to work for due to the worth of remuneration. As a result, it is benefit for the efficiency of work in stipulating the green building standards.

In conclusion, the research findings reveal that the current applicable laws are in consistent with the objectives of green building practice. However, if those laws have actual enforcement, the consumption of energy in buildings will be efficient and based on the awareness of its value.