

AN ANALYSIS OF CURRENT REGULATORY REGIMES FOR ENERGY EFFICIENCY LIVING AND THE WAY FORWARD: A CASE STUDY FROM PAKISTAN

Muhammad Riaz Akbar *

Prof. Neil Hewitt **

Prof. George Heaney ***

Dr. Lay-Cheng Lim ****

Syeda Shabnum Najaf*****

Waseem Akram*****

* PhD Research Scholar, REI Initiative, University of Ulster, UK, riaz.akbar@gmail.com

** Professor of Energy/Director, CST, University of Ulster, UK, nj.hewitt@ulster.ac.uk

*** Professor of Construction/Director, CENI, University of Ulster, UK, sg.heaney@ulster.ac.uk

**** Lecturer, School of the Built Environment, University of Ulster, UK, lc.lim@ulster.ac.uk

***** Senior Urban Planner, The Urban Unit, P&D Department, Punjab, syedashabnum@yahoo.com

***** Senior Transport Planner, Transport Planning Unit, Punjab, waseemakram555@hotmail.com

ABSTRACT

Pakistan is currently facing acute energy shortages. The local energy production is inadequate to meet domestic needs and support economic growth which has decelerated the pace of economic development and industrialisation of the country. The residential sector consumes a significant chunk of the total energy resource available in the country. In this context there is a need to look for avenues where energy savings can be realised. The concept of energy efficient homes and sustainable dwellings is at the centre of energy saving debate but is still in its early stages of development in Pakistan. The main instruments to realise energy savings in any energy management regime stem from legal and regulatory frameworks, institutional and individual delivery capacity and enforcement mechanisms employed by the concerned authorities. This study looks into these regimes at national, regional and local levels and analyses their adequacy as to the objectives of their development and institution. The paper starts by detailing the prevailing situation with respect to (total) energy consumption and energy efficient living in Pakistan in the first part. Next, it analyses energy efficiency provisions for residential sector within the current legal and regulatory frameworks and identifies the challenges to such developments. The research method involves content analysis of policy, legal and regulatory provisions in Pakistan and institutional response through a dichotomous awareness survey about the existence and use of Building Energy Code of Pakistan, which is complementary to the main methodology. The research finds that there is need to adopt a holistic approach to improve the prevailing legal and regulatory regimes, which are weak and poorly defined. The capacity, enforcement mechanisms and environmental performance of these regimes are also important issues. The outcomes of this study are recommendations for the necessary policy responses to better enable Energy Efficient Homes in Pakistan.

KEY WORDS: Efficiency, Passive, Design, Legal and Regulatory, Capacity