

CARBON BITES

From the CIBSE ENERGY PERFORMANCE GROUP

Bite #19

Building Energy Efficiency Standards in Mexico

What are building energy efficiency standards in Mexico?

Building regulations in Mexico work at a borough level and, at the moment, they don't include energy efficiency requirements. There are national official standards like the NOM-008-ENER-2001 and the NOM-020-ENER-2011 that set limits for solar gains through the building envelope. These standards have faced barriers for countrywide implementation mainly because construction licenses are issued by the boroughs on the sole basis of complying with each borough's building regulations.

Nevertheless, Mexico is one of the first countries to have access to the Nationally Appropriate Mitigation Actions (NAMAs) funds for the housing sector. Early in 2013, €14 million were allocated to Mexico for a pilot project of sustainable housing. So, how was the funding allocated?

The social housing sector proved to be ideal for widely implementing energy efficiency measures in the built environment. The majority of developers depend on financing for dwelling construction, therefore, in order to have access to the funds developers need to demonstrate that their dwellings meet energy savings criteria.

The official tool to calculate energy demand and CO₂ emissions (DEEVi) was developed by the Passivhaus Institut (PHI) and it is based on the PHPP. Three models of dwellings were designed with different energy efficiency standards: Eco-Casa I, Eco-Casa II and PH. The last one aiming for a Passivhaus standard. The pilot homes are scheduled for construction in 2013 in different climate zones in Mexico.

Liliana Campos-Arriaga, Low Carbon Architecture, June 2013

Key Issues

- Mexican NAMA for sustainable housing is based on the whole house approach and not on individual energy efficiency measures or renewable energy technologies.
- Mexican NAMA for sustainable housing is currently targeting new dwellings, but NAMAs for existing housing and a NAMA for urban developments are now under construction.
- The Mexican NAMA Project will involve, amongst others, the following actions:
 - Capacity building of federal, state and local authorities on sustainable and energy efficiency housing.
 - Promotion of building codes and national official standards.
 - Development of a local market for eco-technologies, for NAMA projects to be constructed.
 - Improvement and promotion of incentive programmes with more ambitious energy efficiency targets.

LINKS

NAMA Database: https://namadatabase.org/index.php/NAMA for sustainable housing in Mexico

Mexico's Sustainable Housing NAMA: https://www.gov.uk/government/case-studies/nationally-appropriate-mitigation-actions-nama-facility

CONAVI: http://www.conavi.gob.mx/viviendasustentable

This Carbon Bite has been written by a member of the CIBSE Energy Performance Group and does not necessarily reflect the views of CIBSE. CIBSE and the author are not responsible for the interpretation or application of the information it contains.