Building energy consumption amounts to approximately one-third of the total U.S. energy need—heating, cooling, and electricity. It is conservatively estimated that the use of solar technologies in housing could reduce the demand for conventional fossil fuels by 20% nationally. The use of both solar technologies and energy conservation measures in the housing market could effectively improve this estimate to at least 50%. Conservative uses of solar energy for daylighting and sun tempering will occur in most populated temperate climate regions. More advanced solar housing projects will continue to evolve in more climatically advantageous regions where greater efficiencies can be realized. (SEE ALSO: Energy Conservation)

—Phillip Tabb

Further Reading

Space Standards

Space standards is a term with two connotations: positive and normative. The positive connotation refers to the amount or nature of space occupied by a typical household. Common measures of the amount of space include number of rooms (or bedrooms) and floor area per dwelling. Measures of the nature of space include dwelling fittings, household equipment, car parking, usable outdoor space, and suitability of the dwelling with respect to the needs of occupants.

The normative connotation takes the form of statements about the minimum amount, nature, or quality of housing that consumers ought to be able to enjoy. In its simplest form, the latter specifies the living area, number of rooms, or facilities required for the decent accommodation of a household of given characteristics. Standards have varied over the years and differ from country to country. In the United Kingdom, for example, new council housing (public housing) was built to an average standard of around 800 square feet in the 1930s, 1,000 square feet during the 1940s, and about 800 square feet during the 1950s.

Normative space standards are widely used by governments, planners, and housing advocates. Commonly, they use space standards to identify households that are inadequately housed. Governments and public planners also use space standards in designing public housing and in determining the eligibility of private sector housing units for public subsidies. Some communities have also used space standards, as a kind of exclusionary zoning, to keep out inexpensive, small, or low-quality housing.

How do normative space standards get defined? On the one hand, standards articulate community goals, and hence reflect community affluence; richer societies can afford (or want) a more costly space standard. Standards also reflect prevailing attitudes toward the poverty and deprivation of others. In addition, standards reflect the particular social norms that give rise to the notion of “decent” housing. Finally, standards evolve because of information and understanding that arises about the causes and consequences of inadequate housing.

An early normative standard used internationally calls for at least one room per person in a dwelling. Households with more than one person per room are deemed to be “crowded.” Built into this notion of crowdedness are assumptions about the desirability of privacy, the definition of a “room,” and the ability of residents to obtain privacy given enough rooms. The definition of household is problematic here, to the extent that consumers share accommodation to reduce the cost of housing. In recent decades, more sophisticated crowding standards have emerged that link number of rooms to household composition as well as to household size. In Canada, for example, the National Occupancy Standard specifies the minimum number of bedrooms that a household should have by assigning (a) a bedroom for the parent, or parents, separate from their children; (b) a separate bedroom for other singles aged 18 or older; and (c) bedrooms for children at no more than two per bedroom and wherein children aged five or more do not share a bedroom with persons of the opposite sex. This example raises the broader question of how space needs differ with the characteristics of the household. The need for play space, for example, has led some jurisdictions to promote ground-oriented housing for households with children.

However, normative space standards can be cast more broadly than simply in terms of crowdedness. Another category of standard in common use looks to facilities or features present in the dwelling: for instance, source of water, toilet and bath facilities, kitchen facilities, sanitation and refuse disposal, central heating, electricity and wiring, thermal and sound insulation, access to sunlight, and children’s play space. Still other categories of standard look to the frequency of breakdown of dwelling equipment, safety and repair of common areas (e.g., elevators), the cost of repairs, and the condition of the dwelling (e.g., state of repair, presence of vermin). (SEE ALSO: Crowding; Health Codes; Housing Occupancy Codes; Size of Unit; Substandard Housing)

—John R. Miron

Further Reading