As rural electrification proved beneficial to developed societies, early policy planners felt that the same or similar benefits could be achieved in developing societies. Thus, a major effort was undertaken in the 1960s and early 1970s to extend the electrical lines into the rural areas of developing countries. However, by the end of the twentieth century only a few developing nations had reached an acceptable degree of electric grid coverage in rural areas. The rest could not advance much as a result of a number of problems faced by the electric utilities, including lack of capital to finance additions of capacity and grid extensions. Thus, the process of rural electrification through grid extensions in many developing nations stalled to the point that the problem of rural electrification again became a major political issue around the world.

23.1.6 The Rural Energy Scene

Life in many rural areas of the world is no different today than it was centuries ago. Even energy cycles resemble those of early man, although with the introduction of some modern elements. Firewood remains the main source of fuel in most rural communities, in spite of the alarming deforestation, dangers to health and the amount of work needed to collect it. In most places firewood is used mainly for cooking followed by shelter heating and lighting. A good reference point at hand is the case of Mexico, one of the most advanced economies in the developing world. Here, firewood consumption in 1997 represented around 2.7% of the total energy supply, a share that is larger than that of coal and nuclear electricity taken together and almost equal to that of hydroelectricity [7].

Candles and votive candles are more convenient than firewood for lighting, as they provide a more steady and whiter light, and can easily be carried from place to place, thus serving as a portable means for lighting pathways at night. Candles are frequently available in nearby towns, are not too heavy to carry in moderate quantities for long distances, and can be stored for long periods of time. Almost the same can be said for kerosene, which can be used in rudimentary lamps for lighting, although its availability may be more geographically restricted than that of candles. Getting either candles or kerosene requires money, which imposes an economic burden on poor rural families, while their use poses the risk of fire due to the flammable nature of the materials oftentimes used in the construction of rural houses.

23.2 BREAKING THE CHAINS OF UNDERDEVELOPMENT

23.2.1 Electricity Applications in the Rural Setting

The current patterns of energy use in rural areas show that the provision of small amounts of energy, especially electricity, changes the lifestyles of the rural population significantly. Energy applied to improve quality of life of the population may be a good first step to break the chains of underdevelopment. Applications such as lighting, clean water supply, entertainment and communications, preservation of vaccines and other medical supplies and means for modern education are usually welcome by governments, aid development agencies and the rural communities themselves. A number of tasks at home, mostly done by women, such as the provisioning of water, grain grinding, clothes sewing and others, could be made easier with the provision of small amounts of electricity.