Residential Cooking

Cooking and other domestic heating activities are the major energy consumers of the household sectors. They account for about 85% of the energy supplied to the sectors. Cooking in the urban household is about 50% fuelled by traditional biomass, while in the rural household, 99.8% of cooking and other heating are fuelled by traditional and 0.2% by fossils (ECN, 2010). At current situation, the technologies employed are mostly traditional three-stone system and kerosene stove with efficiency of 10% and 30% respectively. The use of liquefied petroleum gas (LPG), is quite marginal and localized within the urban areas, making the percentage use of unclean energy system on a very high side. For efficient consumption of energy and safer environment, a gradual shift from traditional to modern clean energy source will help bring down demand and pollution rate.

Level 1

Level 1 assumes inefficient practices will continue due to poor economic situation. Traditional fuels will continue to dominate the supply of energy in household sectors for cooking and heating services. The energy demand will grow due to growth in population; the energy demand per household will be 6966kWh by 2050 with about 43million household.

Level 2

Level 2 assumes uptake of LPG for cooking and improve efficiency in cooking stoves and water heating, will reduce the percentage usage of traditional biomass for cooking and heating purposes in the household. In this level, the energy demand per household will reduce to 5225kWh which is about 30% reduction in fuelwood.

Level 3

Level 3 assumes high use of LPG in the household sectors for cooking and water heating, thereby reducing the use of traditional biomass. The use of electricity for cooking will be significant. There will be a further reduction in energy demand per household to 3,483kWh. LPG will contribute 25% of the total energy demand, thereby reducing the share of fuelwood by 50%.

Level 4

Level 4, assumes full dependence of the use of electricity and LPG in both rural urban households sectors. Traditional biomass will have minimal contribution of about 20% and the use of more efficient cooking stoves will further reduce the energy demand for cooking and hot water heating. The energy demand per household will be 1,741kWh. With both Electricity and LPG contributing 20% and 40% share respectively. Kerosene will substitute fuelwood as source of fuel for both rural and urban households.

LSJ **Nigeria** Awka outdoor **cooking**