

Last Mile Issues: LPG Case

How Best to Extend Services Where Clean Fuels Least
Available

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MAIN CONDITIONS TO DEVELOP LPG CONSUMPTION

- SUITABLE TECHNICAL & COMMERCIAL REGULATIONS
- LPG & CYLINDERS AVAILABILITY
- SUITABLE TECHNICAL & DISTRIBUTION INFRASTRUCTURE
- COMPETITIVE PRICING

USUAL LPG CONSUMPTION GROWTH SEQUENCE

IN LARGE & MEDIUM SIZED CITIES

- HIGH INCOME POPULATION
- SMALL BUSINESSES
- MEDIUM INCOME POPULATION
- LARGE BUSINESSES
- TRADITIONAL ENERGY REMAINS FAVORED OVER LPG BY THE LOW INCOME POPULATION IN CITIES AND IN RURAL AREAS SO THAT IT IS HARDLY USED AT ALL

LAST MILES ISSUES

- A. AVAILABILITY
- B. PRICING
- C. TRADITIONS, EDUCATION
- D. SUBSIDIES
- E. INVOLVED ENTITIES

A) AVAILABILITY

Suitable and adapted infrastructure, adapted equipment.

LPG Distributors are commercial entities that are reluctant to invest in "last miles" areas that appear less profitable.

RECOMMENDATIONS

New approaches should be considered to cover more efficiently and economically the "last miles" in low income urban areas and in rural areas

Efficient Equipment adapted to local customs and practices

B) PRICING

The main barrier that limits the use of LPG in developing countries is pricing

- Pricing of the LPG compared to alternative energies
- Pricing of the equipment and in particular the "Initial cost" (cylinder + gas refill + burner + regulator + stove etc.)



RECOMMENDATIONS ON PRICING

- Domestic LPG prices should be close to and follow the international LPG price fluctuation trends, particularly prices in neighbouring countries
- Prices should be reasonable, either State or privately controlled, with tempered fluctuations
- Price should be competitive with alternative energies, in particular biomass, and taxes and duties should be minimized and lower than for alternative energies
- Equipment adapted to local practices should be available at competitive prices

C) TRADITIONS, EDUCATION

- There is a natural fear of gas
- Many are unaware of how to use gas properly
- Most are unaware of all the direct and indirect benefits of using gas instead of traditional energies.
- Promotion and education campaign by the Marketing companies and by the State are insufficient to educate the low income and rural populations.

RECOMMENDATIONS ON TRADITIONS & EDUCATION

Beside the education dispensed by the State and the Marketors, there is a need for additional education by independent entities that are in direct contact with the low income population.

- Local not-for-profit associations (women association, etc.)
- Micro-finance institutions
- NGOs

Those entities could be effectively used in providing needed financing or participating in some subsidy allocation process

D) SUBSIDIES

EXAMPLE OF LPG SUBSIDIES IN SENEGAL

Measures Taken

- Subsidies on imported LPG equipment
- Subsidies on wholesale LPG prices based on cylinder size

Consequences

- Highest LPG consumption per capita in sub-Saharan Africa
- “Abnormal” use of the most subsidised LPG
- Great difficulties to reduce or remove subsidies over time
- Tremendous cost to the State

Conclusions

- Subsidies have proved very efficient in boosting LPG consumption in Senegal but at tremendous cost to the country
- The subsidies benefited Marketors, small businesses, and medium income population a lot, but the intended beneficiaries (low income urban and rural populations) only benefited moderately.

RECOMMENDATIONS ON SUBSIDIES

- Subsidies should be avoided when possible, but if used should be designed to be limited in time or to specific users
- Subsidies should be primarily directed on financing efficient infrastructure to reduce import costs rather than on lowering imported LPG prices
- Subsidies should be directed to the “first cost” (Cylinder, Gas refill, Burner, Stove etc.) for low income populations where the cost exceeds normal disposable income.
- In landlocked or importing countries subsidies can partially compensate additional transport costs
- Subsidies should be delivered through the “social safety net” for the low income population (India) rather than through the suppliers
- When LPG is being introduced, the state should have invested (or helped private suppliers to invest) initially in large storage terminal for importing larger but cheaper parcels, gaining economies of scale.

E) INVOLVED ENTITIES

Governments and private distributors have traditionally been the entities involved in the regulation, supply and distribution of LPG.

RECOMMENDATIONS

- Independent entities such as NGOs, Micro-Credit institutions and associations are playing an increasing role in society. They are in daily contact with the populations, aware of their situations and in particular with low-income population, thus should play a greater role in the “last miles issues”.
- Independent entities could play a greater role in consumer education and could be used in the allocation process of subsidized equipment (Entry cost, monthly LPG allocation etc.)

PRIORITIES

- Acceptable and adapted legal Technical & Commercial regulations should be in place**
- Introduce measures for the poor to have financial support to afford the “ Initial Cost” (cylinder+gas+burner+stove)**
- Involve and Support the local Associations, Micro-Credit, NGOs that are operating on sites to dispense education and equipment promotion.**
- Support public and private social institutions and small businesses (Cantinas, Hospitals, health clinics, street restaurants etc.)**

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