

Accelerating Shift: Electric to Gas Water Heating

Prayas Energy Group
DSM Consultation Committee (MERC)
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GWH potential

- Mumbai buys 27,00 MU electricity (~45% sale to households)
- Electric Water heating → Gas Water heating
 - Avoids high cost power purchase (@ Rs 7/U)
 - Reduces morning peak
 - Is quick to implement
 - Benefits consumers as it is much cheaper
- Mahanagar gas has > 4.22 lakh customer in Mumbai
 - If 2.75 lakh shift = saving of 190 MU / yr
- Peak reduction in range of 125 to 150 MW
(assuming 30 % peak coincidence)

The Present situation

- Mahanagar gas allows installation of gas water heaters for PNG consumers. And has authorized dealers for the installation of gas water heaters.#
- Price of a gas water heater seems to be high, **a first cost Barrier**
- Second barrier would be **lack of awareness** amongst consumers
- Third potential barrier could be institutional – gas & electric utilities working with each other



- <http://www.mahanagargas.com/gas-geyser.pdf>

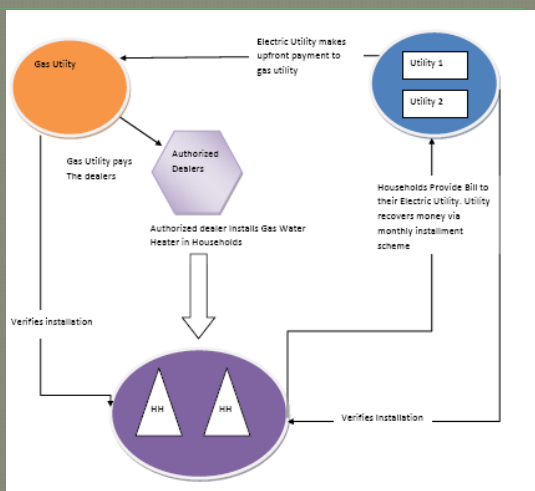
Economics and Safety aspects for Consumer

- Price of Gas water heater with installation is Rs 6,000/-
- Payback period for installing GWH = **1.5 years**
 - (@ tariff of Rs 7/kWhr and Rs 14/SCM for gas)
- Assuming a 10% interest rate the consumer has to pay **350 Rs/month** for the Utility to recover the cost in 18 months (including interest)#.
- The quality of GWH needs to be ensured (there is no ISI standard for GWH)
- Safety while installation needs to be ensured
- GWH with guarantee **> 2 years** should be promoted

Economics can be confirmed by utilities & LBNL

Suggestion to increase GWH penetration

- BEST, REL can make upfront payment to Mahanagar gas.
- Set up installment scheme for their consumers (~18 months x Rs 350)
- **There is no Subsidy involved**
- Utility to cross check feasibility, analysis & report back to MERC



Role For the Commission

- **Institutional:** MERC can expedite the process by having a meeting with the gas and electric utilities in the state
- **Information:** (a) MERC can hold a press conference about the scheme once details have been agreed on (b) Mahanagar Gas can send info / forms with their bills
- The MERC can help remove
 - Organizational barrier
 - 1st cost barrier
 - Informational barrier
 and accelerate the implementation