

STATEMENT FOR PURA VIDEO FILM (October 5, 1993)

- The rural energy scene has been characterized by several firmly held beliefs.
- For instance, it was believed that the best way of providing the electricity needs of villagers is by generating the electricity at remote large-scale centralized plants at hydroelectric stations or coal-based thermal or nuclear plants and transmitting it several hundred kilometres to villages via a grid -- those tall pylons supporting wires strung across the countryside.
- After several decades of this approach to rural electrification, many lessons have become clear.
 - only a small fraction of electricity -- about 30% -- flows to the countryside
 - even this electricity is predominantly for irrigation pumpsets
 - even in electrified villages, most of the houses are unelectrified
 - the supply is erratic and undependable; it is also of poor quality - - even tubelights don't strike!
 - since the supply is too small and remote loads, it is very expensive
- Now, efforts are under way to explore an alternative to the centralized generation-grid transmission approach. Decentralized generation of electricity based on local sources is being explored as a promising alternative.
- There are many alternatives possible -- wind-powered generators, generators based on gasified wood, micro-hydel plants, and even solar photovoltaics, etc.
- What is important is that research and development is leading to the costs of electricity from these decentralized sources declining rapidly. In addition, decentralized sources avoid the large T & D losses associated with centralized electricity and grid transmission. They are also based on local resources and are therefore amenable to local control making villages more self-reliant.
- What you will now see is one such alternative developed by ASTRA -- the centre for the Application of Science and Technology to Rural Areas of the Indian Institute of Science and KSCST, the Karnataka State Council for Science and Technology. This alternative is based on fermenting cowdung, producing biogas which is like natural gas -- a mixture of methane and carbon dioxide -- and using it in diesel engine-genset to generate electricity.