



Validation of Gasifier Technology

A State-side investor interested in an Indian start-up hired EIL to evaluate the gasifier technology at the heart of the start-ups business plan. The gasifiers would utilize biomass to fuel small electrical generation facilities that provide a portion of the electrical load required to operate cell phone towers throughout India.

Client: Clean Feet Investors I, LLC
Location: Rural India

Electricity in rural areas of India is supplied by the “Electric Board” (EB) and is only available for limited times during the day. Cell phone towers in these areas, which require electrical power 24 hours per day, supplement the extra needed capacity with dedicated diesel generators and backup batteries. Because diesel fuel is expensive, highly valued, and easily stolen, the cost of the diesel generated power is quite high. The intent of the business plan being considered by the client was to build, own and operate small electrical generation systems fueled by biomass that will ultimately replace the diesel generators at cell phone towers.

The start-up proposed a technology that converts biomass into a gaseous fuel used to power an internal combustion engine that turns a small electrical generator. The start-up believed that this system could replace the diesel powered generators at an overall lower cost per kW/h.

EIL evaluated the gasifier technology being proposed and performed site visits to the gasifier manufacturing facility in Gujarat India and two pilot projects that were being operated by the start-up. EIL conducted interviews with the technical and support personnel focusing on staffing requirements, initial start-up issues, operational issues and concerns, and actual performance compared to predicted performance.

While finding the technology sound, EIL uncovered a number of logistical and operating concerns that were required to be addressed prior to the client investing in the start-up.

