AISIN Biogas Power Generation System

Use Renewable Resources & Make Green for Future Generation

Demo Site
Bengaluru, India
Self dependence on Electricity, reduce CO$_2$ & maximize Soil nutrient by AISIN onsite Biogas Power Generation System

1. Digester to collect manure & produce biogas
2. Desulfurizer (purifying biogas)
3. Generator

Electricity supply

Electricity for Dairy farm

Electricity for Demo site

Cowdung

Gas supply

Purified Gas supply

Cooking

slurry flow to produce Fertilizer

Fertilizer
AISIN Biogas Power Generation System

Cow Dung: 1 Ton/day
Production of Biogas: 40m³/day
Generator output: 1.5kW/h x 2 Engine
Fuel Consumption: 1m³/h (for producing 1.5kW/h)
Electricity from 2 Engines: 60kW/day (Max Capacity) (Depending on the user need)
Fertilizer: 200kg/day
## Targeted Scale/Size of the System

<table>
<thead>
<tr>
<th>Category/Place</th>
<th>Image</th>
<th>Number of cows</th>
<th>Cow dung (kg)/day</th>
<th>Produced Biogas (m$^3$)/day</th>
<th>Generated electricity (kW)/day</th>
<th>Merit/Demerit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional type, India</td>
<td><img src="image1" alt="Image" /></td>
<td>3–5</td>
<td>30–50</td>
<td>1–2</td>
<td>—</td>
<td>Not sufficient for Power Generation</td>
</tr>
<tr>
<td>AISIN’s concept, India</td>
<td><img src="image2" alt="Image" /></td>
<td>60–200</td>
<td>600–2,000</td>
<td>25–80</td>
<td>37–120</td>
<td>Perfect for Power generation &amp; cooking</td>
</tr>
<tr>
<td>Larger type, Japan</td>
<td><img src="image3" alt="Image" /></td>
<td>750</td>
<td>7,500</td>
<td>300</td>
<td>450</td>
<td>Not cost efficient (collection of cow dung)</td>
</tr>
<tr>
<td>Centralized type, Japan</td>
<td><img src="image4" alt="Image" /></td>
<td>5,000</td>
<td>50,000</td>
<td>2,000</td>
<td>3,000</td>
<td>Not cost efficient (collection of cow dung &amp; slurry management)</td>
</tr>
</tbody>
</table>
Technical Details

Floating type Digester,
Producing biogas capacity of 40m$^3$/day from 1 ton Cow dung

Desulfurizer,
Can reduce sulfur ppm to Zero

2 Gas Engine Generators,
Generating Electricity of 60kW/day(Max).
Can run for continuously 24h/day.
Benefits of AISIN System

- **Diesel fuel reduction**: From one generator 36kWh/day electricity can be produced. Diesel engine dependence will reduce.

- **Continuous running**: 24 hours continuous running. Customer can use the system during necessity.

- **Engine longevity**: Engine life time is 32,000 hours & regular maintenance for every 8,000 hours.

- **Digester**: Gas stove reduces smoke & save time.

- **Gas**: Fertilizer from the slurry.

- **Slurry**: Growing crops by using fertilizer.

- **Farming**:
AISIN’s image of future India’s Smart Village

- Villager’s live stocks
- Villagers Receiving fertilizer
- People bringing their own live stock’s cow dung
- People charging their Mobile/Laptop by generated electricity from Biogas
- Local members cooking at the common stove running by biogas
- Shared Kitchen
- Electrical equipment charging center
- Digester
- Fertilizer
- Generator
AISIN SEIKI Co. Ltd. (Toyota Group)
Headquarter: Kariya city, Japan
Establishment year: 1965
Total employee: 114,478
Main Business: Automobile components
Website: www.aisin.com

AISIN AUTOMOTIVE HARYANA Pvt. Ltd.
Plant: Rohtak, Haryana, India
Establishment year: 2012
Total employee: 746
Main Business: Automobile components

Demo site Address:
Sri Bhagyalakhshmi Farms
Kolur, Gururayanapura (Village)
Ramohalli (Post), Tavarekere (Hobli),
Bengaluru, Karnataka 562130

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Site destination navigation link:
https://goo.gl/maps/3RitBBfu9M12