We Make On Site, On Demand Hydrogen Rich Synthesis Gas... Affordable.

Nat Mundy, CEO
Our Client List Includes:

- Universal Orlando
- Margaritaville
- Sterling Planet
- Reedy Creek Improvement District
- TECO Energy
- Maverick Synfuels
- Georgia Department of Natural Resources
- International Paper
- GP
- OUC
- Three Rivers Solid Waste Authority
- Eco Idea
- Georgia-Pacific
- The Reliable One
- Lakeland Electric
Distributed Generation of Opportunity Fuels to Energy Product
Synthesis Gas Products/Derivatives

- Fuel Gas
  - Boiler
  - Power Gen
- Gas
  - Ethanol
  - Fischer-Tropsch
- Syngas
  - Hydrogen
- Methanol
  - Formaldehyde
  - Methyl Acetate
  - Acetic Acid
- DME
  - Ethylene Propylene
- Oxy Chemicals
- Wax
- Diesel/Kerosene
- Gasoline
- Naphtha
- Polyolefins
Steam Methane Reformer
The Prism…

- Mechanically simple system requiring a fuel valve, air valve, power source and control system along with corresponding instrumentation.
- Sustained results citing consistent methane conversion >99% and a ~1.8 H2/CO product ratio.
- The power supply operates at high voltage (~3kV) and very low current expending no more than 100W of combined processing power at a feed flow rate of 30 to 150 scfm at this scale.
- The Prism can be scaled up or down.
Small scale syngas production is achievable and economical with the PRISM allowing for On-Site, On-Demand Synthesis Gas at Less Than 1% Parasitic Load. The PRISM utilizes low-energy cold plasma to produce a nearly perfect conversion of a carbonaceous gas into clean, homogeneous, hydrogen-rich synthesis gas.

PRISM Head - Showing Methane Dissociation

Entire PRISM Reactor
## Nearly Perfect Conversion

<table>
<thead>
<tr>
<th>Compound</th>
<th>With air</th>
<th>With oxygen</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₂</td>
<td>30.7%</td>
<td>58.5%</td>
</tr>
<tr>
<td>CO</td>
<td>15.9%</td>
<td>32.2%</td>
</tr>
<tr>
<td>CO₂</td>
<td>3.3%</td>
<td>2.9%</td>
</tr>
<tr>
<td>CH₄</td>
<td>1.3%</td>
<td>6.4%</td>
</tr>
<tr>
<td>O₂</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>N₂</td>
<td>48.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Volume/mole percentage display of GC results
Producing High-Value Fuels and Chemicals from Low-Value Biomass and Other Feedstock
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