Electrical Grid Futures

Innovation in the Electricity Sector

July 20th, 2017
• Franklin Electric is a global leader in the production and marketing of systems and components for the movement of water and automotive fuels.

• Founded in 1944, Franklin manufactured the first water-lubricated submersible motor for water systems, and the first submersible motor for fueling systems.

• Headquarted in Fort Wayne, Indiana, Franklin employs 5,869 people globally located in over 50 locations.

• With a business mix of 77% water systems and 23% fueling systems, Franklin sales are >$1 billion.

• Ticker: FELE (NASDAQ), ~$2 billion Market Cap.
While maintaining a culture of safety and lean principles, Franklin Electric promises to deliver quality, availability, service, innovation, and value in every encounter we have with our stakeholders, including direct or indirect customers, employees, shareholders, and suppliers.

These are our Key Factors for Success.
Grid Solutions

Intelligent Controls founded in Saco, ME

LTC position monitor developed for a major electric utility

INCON acquired by Franklin Electric

Liquid level monitoring & leak detection products developed for fueling industry

Released OM3 circuit breaker monitoring system w/ SF6 sensor

INCON received Governor's Innovation Award for green technology

Received Governor's Innovation Award for green technology

GridSense acquired by Franklin Electric

Received RD100 Award for SF6 technology

INCON acquired by Franklin Electric

INCON TEAM RECEIVED THE GOVERNOR'S INNOVATION AWARD

Smart Grid analytics market in US will grow from $300M to $1.4B annually by 2020 ($3.8B globally).

In US, there are ~180M utility poles, transformers and transmission towers that can be equipped with hundreds of sensors.

While renewable energy is currently still a small part of the resource mix, it is steadily increasing (i.e. microgrids, EV, etc.).

Major themes in 2017 include IoT, energy storage and solar.
Of the 11 Asset deals, renewable deals accounted for seven, and when combined with the two Corporate renewable deals, renewable deals accounted for $4.3 billion or 34 percent of total deal value in Q1 2017.

On 5/8 ESCO acquired NRG in Vermont, who provides decision support tools for the renewable energy industry.
- Microgrids will grow into a $20 billion industry by 2020.
- NY’s “REV” program (reforming the energy vision) mandates that 50% of energy must come from renewables by 2030...microgrids will enable this.
- Largest obstacle right now is policy regime and regulation (state and federal).
GridSense Transformer IQ

• Provides real-time, continuous intelligence for distribution transformers from the padmount to the poletop.

• Designed for quick, live installation and equipped with an on-board, no-maintenance power source.

• Transformer IQ provides:
  • Protection against overload
  • Ability to quickly diagnose and resolve maintenance issues
  • Improved fault restoration time
  • Optimized asset utilization, prediction of remaining asset life

<table>
<thead>
<tr>
<th>Application</th>
<th>Customer</th>
<th>Installed Base</th>
<th>Problem Addressed</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vault Monitoring</td>
<td>Florida Power &amp; Light</td>
<td>1000 +</td>
<td>Immediate SCADA data on Tx performance</td>
<td>Safety and minimized outages</td>
</tr>
<tr>
<td>Volt/Var</td>
<td>AEP, Xcel</td>
<td>100</td>
<td>End of line voltage – PQ.</td>
<td>Improved capacitor performance / Better SAIDI scores</td>
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<tr>
<td>Critical Asset</td>
<td>Florida Power &amp; Light</td>
<td>100 +</td>
<td>Immediate SCADA data on Tx performance</td>
<td>Minimized outages for valued customers</td>
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<tr>
<td>Theft Reconciliation</td>
<td>PREPA, Myanmar</td>
<td>400 +</td>
<td>Theft of power</td>
<td>Recovered revenue</td>
</tr>
<tr>
<td>Underground Fault</td>
<td>Oncor</td>
<td>50 +</td>
<td>Fault sectionalization</td>
<td>Minimized truck roll and outage</td>
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GridSense Line IQ

- Self-powered sensor easily installed on energized lines with a standard hot-stick.
- Uses a highly accurate CT as opposed to an inaccurate inductive coil to measure current (allowing distance to fault calculations).
- Multiple communication protocols
  - Retrieve data locally through a wireless connection
  - Line IQ Communications Gateway allows communication through cellular, Ethernet, mesh radio, wi-fi
  - Supports multiple messaging protocols, including DNP3
- Quickly and efficiently determines fault location for power restoration.

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<tr>
<td>Long Line Feeders</td>
<td>Alliant</td>
<td>600+</td>
<td>Location of fault</td>
<td>Reduction in time looking for fault</td>
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<tr>
<td>Remote Controlled Motor Operated Switches (RCMOS)</td>
<td>PPL, Alabama Power</td>
<td>750+</td>
<td>Automating non-intelligent switches with immediate diagnostics</td>
<td>Reduction of outage time; data retrieval in 12 seconds</td>
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