Akilee Plc Services Presentation

Senelec (Utilities) Digital Leverage

November 2018

Senelec  Privés Sénégalais

34%
Energy Services technology-based Company, AKILEE supports utilities in their digital transformation while helping customers in understanding and managing their energy bills.

Akilee offers various services based on digital technologies (ICT), energy efficiency (EE) and renewable energies (RE).

Customers
- Advise customers through
  - Real-time energy monitoring
  - Energy consumption drivers
  - Alerts and anomalies detection
- Assist consumers for
  - Identification of energy solutions
  - Technical analysis
  - Financial and technical analysis
- Support consumers with
  - Financial solutions
  - EE projects EPC Services
  - Project supervision services

Utilities
- Modernize utilities CRM
  - Remote metering and billing reliability
  - Real-time services (claims, interruptions, rolling survey)
- Improve Quality of Services
  - Real time distribution grid operation
  - Grid overview (end users voltage, NDE, outages...)
- Demand Side Management and Loss Control
  - Diffuse peak shaving solutions
  - Smart solution for distributed generation (VPP)
  - Revenue Management (NTL : tampering, anomalies...)
- Data analysis
  - Customer trends et expectations analysis
  - Characterization of customers financial and energy patterns

Energy expenses reduction

EE – ICT – RE

Efficiency and reliability improvement (Added value)
AKILEE aims at addressing the customers' expectations and improve the quality of their consideration by the utilities while helping these utilities to better manage the digital revolution.

1. Smartgrid management thanks to deployment and supervision of large scale Automated Metering Infrastructure

2. Higher reduction of energy expenses thanks to IOT and Domotic technology development

3. Emergence of analytics science (Big Data) allowing specific marketing (behavioral prediction and personalization of services)

4. CRM reinvention thanks to digitalization and dematerialization (e-billing, push SMS/Mail, web/mobile pay...)

5. Development of advising applications dedicated to energy users

6. New energy models ➔ Centralized generation vs distributed systems; floating peak period for the billing
Akilee relies on digital technologies, energy efficiency and renewable energies (solar in particular) to support your energy management project and cost killing. Thus, we offer three lines of services.

- **Akilee Energy Management (AEM)**
  
  Our real-time energy consumption monitoring service with ad hoc advices to reduce your energy costs.

- **Akilee High Efficiency (AHE)**
  
  Our high energy performance equipment retrofitting service, which may include installation of remote control systems.

- **Akilee Power System (APS)**
  
  Our turn-key service to help you produce solar energy on your own; we take responsibility for everything, from studies to commissioning.
Akilee Energy Management service offers to customers, individuals or professionals, a galaxy of diversified services that will allow them know in detail their energy consumption and identify energy saving actions.

**Real Time Monitoring**
- Real-Time remote reading of energy consumption
- Load curve display with different time-steps
- Consumption history storage (over day, month or year)
- Consumption monitoring by quarter of production or range of activities and analysis of the coherence between consumption and activity

**Detailed Analysis & Reporting**
- Dedicated algorithms for consumption history analysis
- Energy bills calculation and projection before due date
- Ecological impact assessment (CO₂ emission)
- Duration and frequency of power cuts analysis
- Analysis of specific consumption if complementary data are shared

**Detailed Analysis & Reporting**
- Supervision of consumption anomalies according to well-defined rules relating to the activity or inactivity of a site, the production or non-production of a plant, the exceeding of consumption thresholds or Pmax
- Optional alert sending via SMS or Mobile application (under work)
Examples of applications for the customer
Examples of applications for utilities (grid efficiency, losses monitoring, asset management, grid analytics...
After 1 year of operation, AKILEE has convinced highly valuable customers (~500#, with roughly 20 MW and 12 Billion FCFA of cumulative power and energy bill under management), however AKILEE will face real challenges for its development.

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<th>Challenges</th>
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<tr>
<td>Organization and rapid growth management</td>
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<td>Capacity building and training of HR</td>
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<td>Financial Leverage and Structuring strong and heavy financial plans</td>
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<th>Main projects</th>
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<tr>
<td>Senelec AMI &amp; VPP operation</td>
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<td>Grid monitoring for several applications</td>
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<td>Senelec’s Rural Concession Operation</td>
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<th>Resources</th>
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<td>Started in August 2017, with 3 employees</td>
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<td>Now renting a 200 m² Open space, with 21 employees in 8 month</td>
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<td>Targeted 600 employees in 2028, supporting innovation and research programs</td>
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