



AFRICAN UTILITY WEEK

DELIVERING BEYOND TOMORROW



BUSINESS LEADERS CURRENT VIEWS

“There is a near real-time fully operational smart grid. It is here already, fully functional and tested.”



**Exclusive interview with Paroshen Naidoo of Util Labs:
the company that monitored the energy consumption at COP17**

1) You were at COP17 last year, tell us about the energy monitoring you did there?

We featured at the COP17 working with the organisers of the Climate Change Response Expo (CCRE) and used this as a springboard to showcase one of our latest releases, the Consumer Consumption Console. We installed our devices at the temporary supply points at the CCR Expo which measured and stored details of the consumption per phase in real time. The area and expo was wired such that we measured the different marquees and different loads separately. This gave the organisers the power to make decisions in line with reducing peak consumption and total consumption, in turn minimising their carbon footprint as a result of electricity usage.

We gave the public access to these real time and historical figures through our web interfaces which were accessible through the homepage of the CCR Expo.

2) What were the results?

By analysing the real time and historical data and using the power and flexibility of the system, the organisers could take steps to reduce their peak and total consumption by starting the air conditioners earlier, thereby reaching optimal temperature and reducing HVAC load before the peak loading of the normal Expo kicked in and the stands opened. Also by identifying which areas were being used at night and switching loads not in use but still drawing power after hours off.

The expo venue used 145 649.44 kWh worth of electricity in those two weeks. If we compare this to household electricity use*, where an average household of 3 residents uses 6,000 kWh per year, the expo used more than 24 times the average household consumption for one year. (These are based on American consumption figures).

The awareness generated for us was extremely valuable based on the high level of involvement on conservation efforts from the event's target market. The audience was concerned with a common goal of decreasing harmful emissions and adopting methods to alleviate the negative impact of climate change, to which the LVSS can play a significant role.

The entire system was developed locally which proves to the world the level of technological deployment in South Africa is equivalent to that of first world countries.

*Southern California Household Energy Savings, by Dennis Silverman, from <http://www.physics.uci.edu/~silverma/actions/HouseholdEnergy.html>

3) What were the lessons learnt from this?

Knowledge is key to inspiring the behavioural change that is so crucial for South Africa to achieve its energy saving targets. When people have real time visibility of their household's energy load, with instant insight into the fluctuations in consumption when appliances are switched on and off, they are not only empowered but also inclined to change their habits to cut consumption. Although no conclusive agreements were met at the conference, COP17 highlighted the importance of working as partners in order to achieve the targets outlined. That said, the fact that the LVSS provides increased levels of transparency via the Eddi, further reinstates the strategic relevance behind monitoring the events consumption.

We also realised through this initiative and discussions with various industry players, the need for this type of system and Eddi in the industrial and commercial sector due to the high electricity costs, CO2 limits imposed on companies and dependence on reliable supply.

4) What were your impressions of COP17?

It was a great opportunity for exposure for South Africa, South African companies and initiatives and ideas. The platform that was created for Environmental sustainability is just the start and we hope everyone doesn't lose their interest past this event and take away something that they can implement or change in their company, country and even industry.

5) What are you most excited about currently in terms of Util Labs products and solutions?

For a start-up company, still in its infancy phase, it is imperative to continuously revise the product and service offerings so that the markets increasingly demanding needs are met. That said, 2012 presents exciting opportunities for Util Labs given that the company has successfully managed to identify and fill a gap in the market for which there is not only demand but also sustainability.

The company is thrilled about the recognition received from winning the Eskom eta award under the "Innovation" category as it has led to increased exposure and created a favourable image for our brand. The company also won two awards at the TT100 programme for "Management of people" and "Management of Technology". These prestigious awards have encouraged further mention of the company and its service offering in various credible magazines and newspapers. We have also just been shortlisted as finalists in the Middle East Electricity awards for "Best Project of the Year" and "Corporate Social Responsibility".

The most exciting developments that have further enhanced the LVSS offerings include; Energy Balancing, Appliance Control Devices and working on improved hardware across our systems. Furthermore, by broadening our target market into the commercial and industrial sector, we can be assured that we will achieve greater awareness levels, more sales and the opportunity to discover unmet needs.

6) What is on the calendar for Util Labs for 2012?

Util Labs has an overall optimistic attitude towards the future and it is inevitable that rapid growth will be taking place over the next few years. We plan on broadening our target market to incorporate commercial users as well as the industrial sector, whilst still maintaining power utilities and municipalities as a primary target market due to the nature of the service offering as a whole. Additionally, the company plans to attend more relevant energy related events to further boost awareness, exposure, and increase networking opportunities and for the sake of research and development.

7) What opportunities do you see in Africa?

Util Labs has tremendous expansion potential by exporting the system and product to neighbouring countries that are experiencing the same challenges as South Africa in terms of demand management and capacity constraints. There is finally a chance to create a culture of energy savers throughout Africa. The system can eradicate injustices, such as inaccurate billing and theft, caused by the lack of information and control on the utility side thus there is the opportunity to make Africa a more fair, organised, and efficient continent.

8) What do you think makes Util Labs competitive in this market?

Util Labs has successfully penetrated an entirely new market based on the innovative offerings of the LVSS. **To date, there is no operational near real time system of this size like the LVSS in the market.** The need for the system goes way beyond South African borders and therefore there is an international market for the LVSS. Furthermore, due to the distinct nature of this system, Util Labs has many differential advantages to exploit.

The company possesses the ability to tailor packages by selling the various features separately and therefore we are able to accommodate any specific requirements at a reasonable price. Our team's collaboration and revolutionary thinking in developing the LVSS have been key factors in successfully achieving a customer base of 14 000 in 24 months and unlocking of many potential smart grid functionalities.

9) What do you think are the biggest challenges to the South African/African energy market?

Dealing with the residential market, the lack of knowledge on how to make a significant difference in terms of energy conservation, and that is an area where our system can make a significant difference. We saw that the best way to do this is by providing immediate feedback to the customer.

10) What surprises you about this industry?

The brilliant solutions that fellow South Africans are providing with great emphasis on renewable energy offerings as well as the outstanding level of quality, attention to detail when planning and sustainability factor that have been carefully and diligently deployed

Also, the rapid rate at which the industry is growing despite the challenge of the “brain drain” that our country faces also comes as a pleasant revelation.

11) Why are you a sponsor at African Utility Week?

This is our first year, but since we place great emphasis on the importance of R&D and due to the dynamic nature of the industry it is crucial to keep abreast with trends and opportunities that energy-related events present. Furthermore, AUW provides insight into optimising the revenue potential of a Utility through smart metering, product/system leverage strategies and the realities of running a Utility as a commercial enterprise which is paramount to Util Labs mission. With over 1500 visitors and participants to liaise with, AUW presents a suitable forum to exchange ideas and identify potential business partnerships.

12) What will be the main message that Util Labs has for the African Utility Week delegate and visitor?

Our main focus will be to get the message out there that **there is a near real time fully operational smart grid. It is here already, fully functional and tested.** Also I would like the industry to realise the importance and benefit of having near real time data and the ability to turn that into information is extremely crucial for any smart grid.

We can tailor solutions to meet the diverse needs of each customer. Our aim will be to engage customers and build relationships with them based on a thorough understanding of their expectations. Furthermore, with regard to the desired outcome of the event, the contribution that the LVSS can make in terms of achieving efficiency targets without hampering productivity is evident.

13) Anything you would like to add? - Overview of LVSS?

The Low Voltage Smart System (LVSS) is a suite of applications, supported by smart devices that measure, monitor and control the low voltage electrical network, giving near real time visibility of the Low Voltage network, effectively bringing the field into your control room. This makes the grid more reliable, eco-friendly and efficient creating a Smart System since any fault situation will be noted at the control room and corrective action can be taken hence improved customer services. The LVSS forms a revolutionary Operational and Business Support System.

The Operations Support System (OSS) functions include customer services, a call centre capable of attending to customer queries in real time, customer messaging, remote disconnect/connect, revenue protection (energy balancing), outage detection and maintenance integration which facilitate in network management and enable reliable service assurance.

The Business Support System (BSS) includes billing and meter data management which enables sound revenue management. Both these systems are supported by customer messaging, flexible load management and a base infrastructure.

With an innovative foundation of robust, secure communications and real time responses, Util Labs can provide customised effective energy efficiency solutions to Power Utilities, Municipalities, industrial or commercial consumers.



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