

PowerWatch™

Electricity consumption visible in real time -- Savings benefit all the time

1. Introduction

Simbalism power & contracting is a consultancy devoted to achieving two key outcomes for its southern African clients:

- optimising energy consumption, and / or
- reduced reliance upon the Eskom grid

Both of these always intended to achieve a measurable economic benefit for our client.

A powerful tool we are able to offer is the exclusive PowerWatch™ service; a patent-pending facility that makes electricity consumption clearly visible to all chosen members (staff) of an organisation in real time with many resulting benefits that include: controller / financial decisions to prevent wastage, behaviour adjustment to reduce consumption and clear patterns of usage to make good decisions about further energy-efficiency interventions.

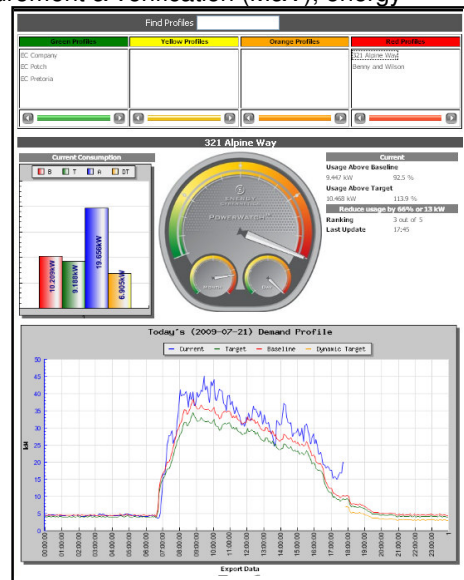
2. Overview of PowerWatch™

PowerWatch™ is a South African developed, purely internet-delivered service. The concept developer – Energy Cybernetics (EC) – are specialists in the disciplines of measurement & verification (M&V), energy optimisation and software development and have spent 150+ man years constructing the system.

EC is the brains behind the Eskom / SABC 'Power Alert'; an initiative that has earned them many awards including prestigious recognition from the American Association of Energy Engineers for the project that demonstrated highest efficacy and return on investment.

The fantastic success of that work led us to realise that a powerful way to create meaningful change in the energy consumption profile of an organisation is to make the use immediately apparent to all members of that organisation, rather than just a few 'energy managers' within the enterprise. PowerWatch™ makes electricity use visible to everyone in real time and supports automatic behaviour change.

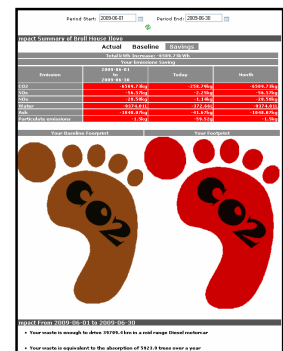
Simbalism is a Certified Solutions Partner to EC and typically we deploy PowerWatch™ either as a component of our consulting engagement with a client in order that we can all be on the same page as to the energy savings accumulating as a result of our intervention(s), or in its own right as the 1st step in an ultimate energy management strategy so that we can begin to understand how and where electricity is being consumed and begin to adjust the users' wasteful consumption habits.



2.1 Description and Key Features of Service

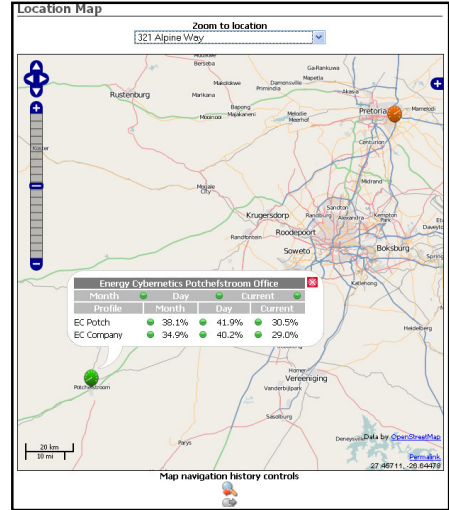
To the typical user PowerWatch™ appears as a small colour-button icon (Green / Amber / Red) at the bottom corner of their computer screen showing the real-time electricity use. When consumption exceeds the configured target for that time of day, a pop-up expands to fill a larger proportion of the screen, demanding acknowledgement and a behavioural response from the user.

A click on the icon launches a full facilities dashboard and tool set with access to a wide range of detail related to the organisation's energy consumption, environmental impact and including an extensive set of configurable reports.

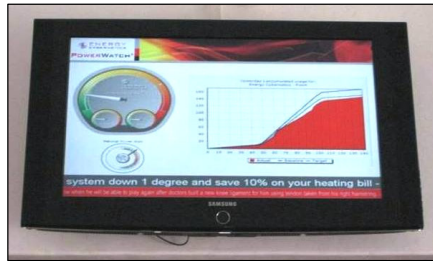


Features include:

- Very simple control unit installation; typically per metering point
- Delivered on a SaaS (software as a service) basis with no intrusion to the IT environment. (Thus if ever the company relocates, the service moves with you)
- Visible to all chosen staff on their PC screens
- Target and baseline consumption pre-loaded; adjustable at any time on instruction
- Dashboard includes view of all divisions of the organisation so each area can assess its position relative to the other (on an equalised basis). This is excellent for stimulating energy-saving competition amongst business divisions
- Considerable reporting facilities and detail extraction
- Summation of various metering points to achieve an enterprise view of a functional unit view (eg All mills / All floors / etc)
- SMS, email and other alerts available where required
- Can be integrated as a front-end management & control system for BMS and other central control options, allowing an energy manager to control consumption across the enterprise from his/her desktop.
- Out of target spikes must be acknowledged before the alert will minimise (on screen)
- Monitor / television feed to display in public and/or key areas (including 3rd party news feeds if desired)
- Service support by the developers
- Software 'learns' all of the variables associated with each of it's installation points, ie:
 - Baseline and target consumption (programmed at set-up from the organisations historic billing)
 - Weather patterns
 - Hours of business
 - Pattern and nature of use
 - Human behaviour across the monitored area
- Specific intervention and energy-friendly behaviour training with recognised certification available as an additional service



Television display of key info in public area



3. Benefits

While extensive external public relations, marketing and internal staff awareness benefits are available, the ultimate purpose of PowerWatch™ is to assist clients to save money by:

- Presenting real-time energy consumption information at all times. Availability of this info can greatly contribute to general financial and operational management improvement
- Serving as sound basis for establishing what other interventions will be most efficient once

3.1 Carbon credits / Tax breaks

The SA government is now offering tax relief for qualifying interventions related to energy efficiency, while both locally and internationally the carbon credit market is maturing. While the deployment of PowerWatch™ per sé is unlikely to be a qualifying intervention on its own, it will present you with an accurate picture of your current carbon footprint and energy use, providing a source of relevant evidence and benchmarking for tax and carbon claims.

4. Conclusion

This solution is simple to deploy and use, and very effective. Designed to address the first line of intervention for improved efficiency: complete awareness and analysis of consumption available to as many people as possible, PowerWatch™ is likely to be soon the base standard for a sustainable energy management programme.

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