

Power up

AT THE CONCLUSION OF THE SIXTH WORLD FUTURE ENERGY SUMMIT, *fmME* LOOKS AT HOW THE FM INDUSTRY CAN SAVE ENERGY

Abu Dhabi Sustainability Week took place in January 2013, with the World Future Energy Summit (WFES) the highlight of the week. “Long a leader in conventional energy, the UAE’s ambitious turn to renewable energy is significant. This willingness should inspire more countries,” said Delphine Batho, French Minister of Ecology, Sustainable Development and Energy, at the signing of an agreement between France and Masdar to co-operate on renewable energy research and project development.

So, how are FM firms playing a role in the increasingly energy-efficient economy? Dar S. Danesh, regional manager — business development, Energy Advantage Middle East, Simon Roopchand, general manager, Emrill Energy, Markus Oberlin, CEO, Farnek

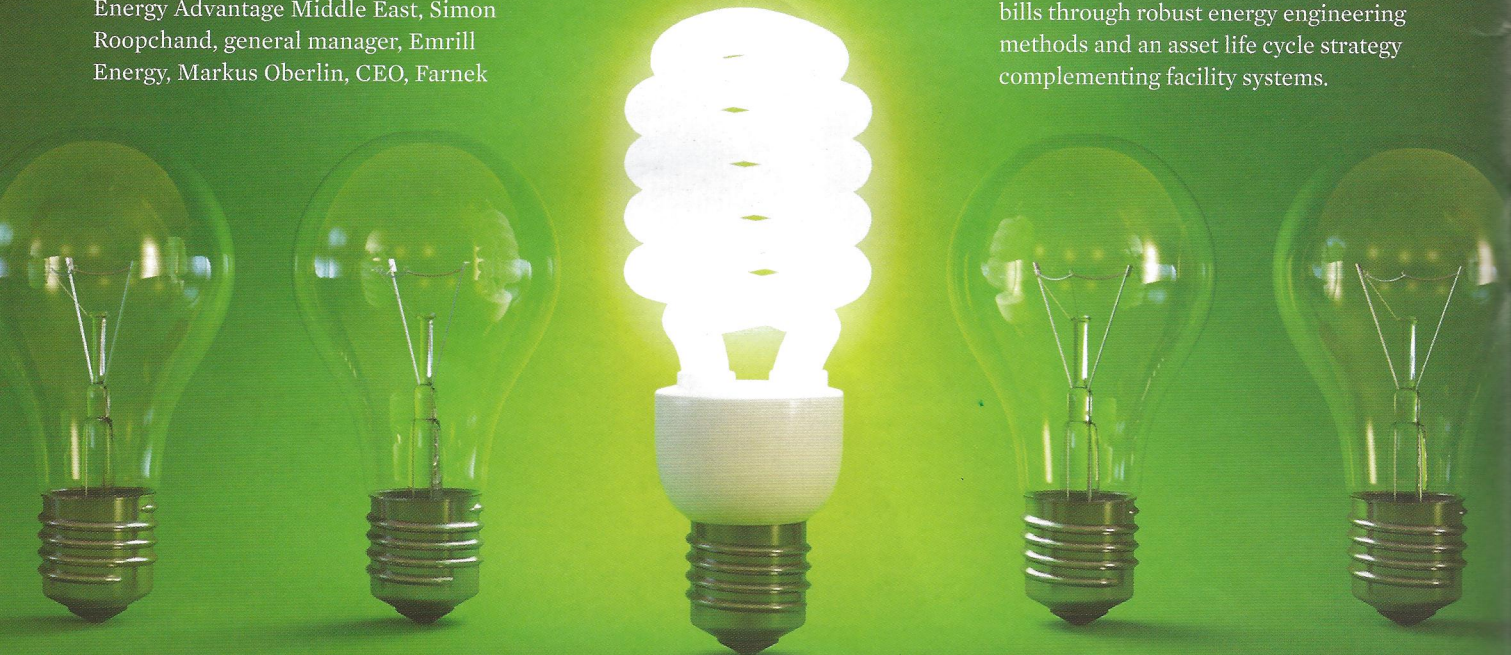
Avireal, Karim Boutaour, regional strategic and marketing leader — Middle East, Honeywell Building Solutions, and, Alexandre Mussallam, CEO, MAF Dalkia, discuss the issue.

WHAT IS THE IMPORTANCE OF ENERGY SAVING IN THE CURRENT CLIMATE?

Dar Danesh: Economically speaking, saving money is always a motivation. There is a growing momentum towards energy management in the Middle East, where organisations focus on understanding how they consume energy, and how to reduce it. The results of effective energy management and importance of managing consumption are: reduced

costs and waste, improved efficiency, improved competitiveness and reputation, reduced risk and environmental impact, leading to improved CSR, which has downstream benefits — consumer impression, retention, and reputation.

Simon Roopchand: With the global rising cost of fossil fuel alongside diminishing reserves, Dubai has seen utility bills double in the past three years with no signs of stopping. In the UAE, energy costs to run businesses are typically four times more than the cost of facilities services within the commercial sector. Businesses should be paying attention to the optimisation of asset maintenance, and increasing energy efficiency to reduce overhead costs. You can potentially save up to 70% of utility bills through robust energy engineering methods and an asset life cycle strategy complementing facility systems.



Markus Oberlin: I think nowadays it is the target of every government, NGO and private organisation to be as energy efficient in their operations as possible. Similar to optimising work processes, the building or infrastructure can or should also be optimised. Saving energy is a win-win situation; it increases profitability by saving money through reduced utility costs and helping the environment by reducing harmful carbon emissions.

FAST FACT
70%
POTENTIAL SAVINGS THROUGH ENERGY ENGINEERING METHODS

Karim Boutaour: We are seeing a huge impact of global warming on the planet.

The importance of energy saving in the current climate will help people to appreciate the simple things in life which we have taken for granted for such a long time. Energy savings must become a culture and a habit, not a regulation.

Masdar and other initiatives in the region are bridging the gap between policies and technologies, not only to reduce the carbon footprint but also to make economical sense.

Alexandre Mussallam: From the economical point of view, with the rise of cost of fossil fuels and worldwide panic over the earth warming up, energy saving contributes dramatically on an economical and environmental level.

IN WHAT WAY DOES YOUR FIRM SAVE ENERGY FOR ITS CLIENTS?

DD: We design an energy and environmental management program over a



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Markus Oberlin
 A building can be optimised like work processes.

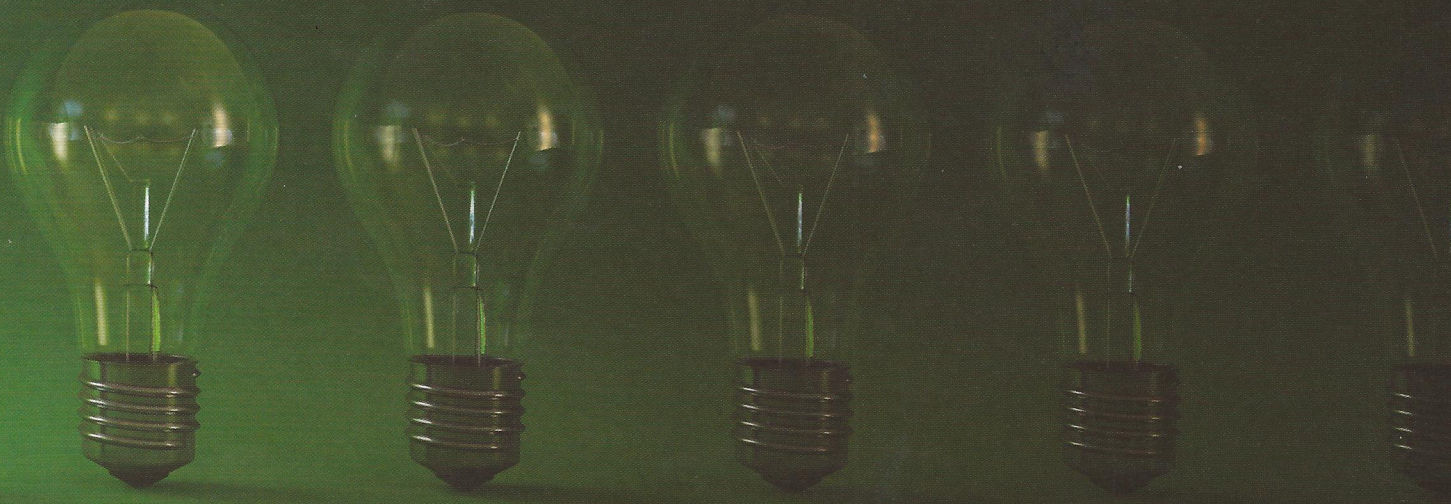
multi-year strategy on a sustainable platform looking at the lifecycle of the facility. We run energy assessments and audits to identify the savings opportunities and create benchmark measurements against performance indicators.



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Simon Roopchand
 Utility bills in Dubai have doubled in three years.

// WITH THE GLOBAL RISING COST OF FOSSIL FUEL ALONGSIDE DIMINISHING RESERVES, DUBAI HAS SEEN UTILITY BILLS DOUBLE IN THE PAST THREE YEARS WITH NO SIGNS OF STOPPING. //

SIMON ROOPCHAND





Dar Danesh
Savings of up to 5-20% can be realised.

// ENERGY AND WATER PRICES ARE STILL TOO LOW AND DO NOT PROPERLY REFLECT THE NEGATIVE IMPACT ON THE ENVIRONMENT. THROUGH HIGHER PRICES, CONSUMERS WOULD BE PRESSURED TO START THINKING ABOUT WAYS TO SAVE ENERGY. //

MARKUS OBERLIN

equipment is the principal way of ensuring it is functioning at its optimum level of efficiency. Second, energy audits — this is the best way to evaluate the efficiency of equipment, especially in a building where the design parameters are compared to energy output and performance-benchmarked. Third, IT solutions for energy management — Farnek has an energy benchmarking/optimisation tool which collects the utility consumption data from a building, and rates the performance based on impacting variables such as occupancy, climatic conditions, change in spaces. Fourth, education and awareness — we partner with various public and private sector organisations to educate people of all age groups in every area of society. Fifth, through our partnership with Green Globe Certification, we work with around 50 local and regional hotels on the certification and support them in optimising their work environment to become more sustainable. Through the use of Hotel Optimiser, we have recorded a carbon reduction figure of

3,980 tons between January and June 2012 against the same period in 2011 across 12 UAE-based facilities, which corresponds to an 11% energy reduction. **KB:** At Honeywell, we measure tangible energy savings and intangible op-

When looking at the behavioural and operational aspects, we see savings in the range of 5-20% and depending on the capital project, savings can be realised above 20%, and as high as 50% when it comes to upgrading facilities. **SR:** Emrill Energy can implement proven building optimisation strategies tailored to the requirements of the region that can reduce the overall energy consumption of a building by up to 70%. **MO:** We help our clients reduce energy consumption in five major ways. One, planned preventive maintenance — proper scheduled maintenance of



Karim Boutaour
Both tangible and non-tangible operations need to be accounted for.



erational savings. This includes taking pro-active measures and altering the parameters of various HVAC equipment while in operation, identifying the health status of every single item and maintaining them, re-engineering the logic of the intelligent energy controllers to suit the facility's needs, provide remote methods of monitoring and controlling the facility during off-peak periods, educating technicians and FM teams, thus reducing the overall cost of the maintenance of the facility.

AM: MAF Dalkia delivers all technical services with the 'Energy in Mind' concept. We demonstrate a reduction in many of our clients' utilities bills and provide detailed reports of our contributions to the environment.

WHAT IS THE BIGGEST OBSTACLE FACING ENERGY SAVINGS, AND HOW CAN WE FIGHT IT?

DD: Lack of understanding to make the necessary commitments toward energy management. Many organisations don't fully comprehend the level of commitment involved to make energy management a part of the operational structure, financial obligations and reporting practice. This requires having an energy committee, allocating financial resources, assigning individu-

als, setting goals, supervising implementation strategies and accountability on performance benchmarks.

SR: The misguided perception of what 'energy management' constitutes and the lack of confidence in its savings. Historically, energy reductions have been sold as either products or exaggerated saving models without guaranteed paybacks making owners cautious and distrusting. The challenge is to convince them that energy management is about behaviour, system design, usage and robust measurement methods.

MO: In my opinion, the energy and water prices are still too low and do not properly reflect the negative impact on the environment, or the fact that most energy generated is not renewable. Through higher energy and water prices, consumers would be pressured to start thinking about ways to save energy and protect resources. I believe it would also spur further investments towards installing the latest energy efficiency enhancing technology. Another issue is that many firms that rent their premises do not have access to their energy consumption figures as they pay a lump sum fee to the landlord. Plus, raising awareness of global warming and the necessity to take action can and should be improved still further.

FAST FACT

3,980

TONS OF CO₂ SAVED BY
FARNEK AVIREAL IN
SIX MONTHS ACROSS
12 PROPERTIES



Alexandre Mussallam
Staff training and client education is important.

KB: Lack of education on the real significance of energy, lack of government legislations, subsidised prices on tariffs, lack of incentives and private funding for energy optimisation projects.

AM: There are two major obstacles in the way of energy savings. The first is related to the technical team's training and development, where there is a need to implant such a culture in the daily work routine. The second factor is related to the customer's understanding of the issue, which should be achieved by demonstrating good valid saving results while maintaining quality deliverables. ■