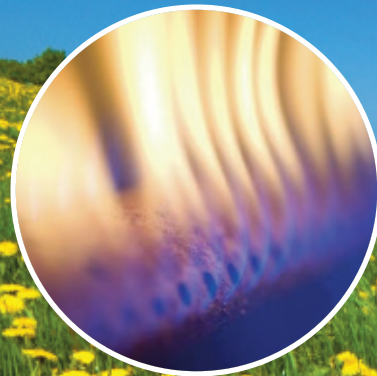




 Measure

 Monitor

 Reduce



Content

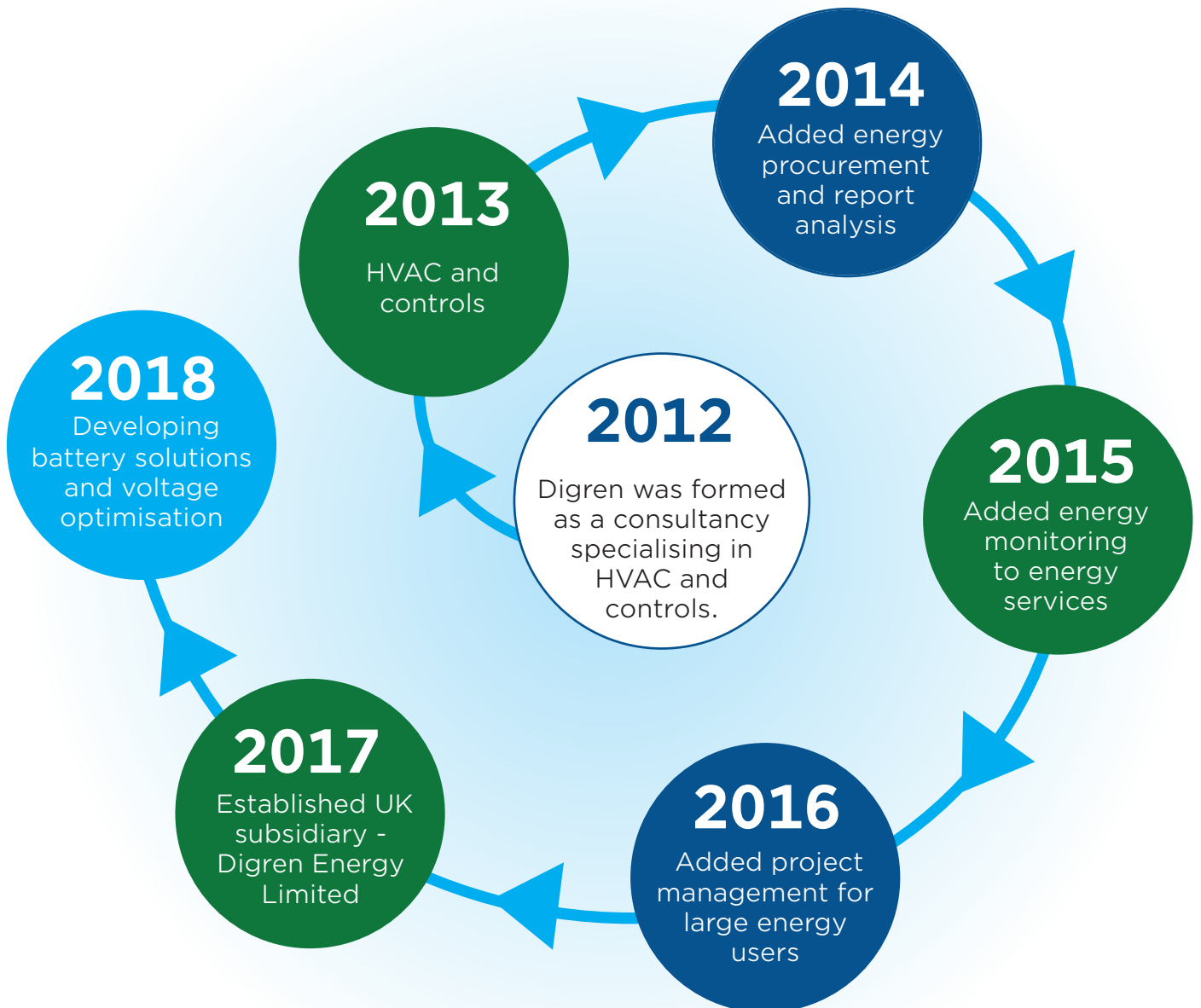
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Digren

COMPANY PROFILE



Digren Ltd is an energy management consultancy. We provide a complete energy management service to all business sectors and local authorities. Our focus is on consumption reduction. We provide a unique energy management consultancy service tailored to our clients specific requirements and budgets.



digrenenergy.ie

Digren

COMPANY OBJECTIVES



To provide organisations with cost effective, PRACTICAL energy management solutions.



To assist organisations in developing their own Energy Management Plan (EMP) and to implement it.



To create lasting **partnerships** with these organisations with the shared objective to reduce energy consumption.



To create an 'Energy Awareness' environment within these organisations to allow them sustainably maintain their energy efficiency measures.

The **greenest** unit of energy is the energy you didn't have to use.

Digren

OUR CORE VALUES



Honesty

We deal with all clients in an open and honest way. We will give you all the advice possible for you to make an informed decision. We are praised by clients for our customer service levels.

Respect

Digren Energy will ensure all of our employees and agents respect the thoughts and wishes of all of our internal and external stakeholders.

Accuracy

Digren Energy's team of professional consultants ensure all client offers and services are accurately presented and are suited to their business needs.

Transparency

Digren Energy ensures transparency in our interaction with our customers to ensure they are aware of the benefits that provide sustainability to their business. We gain no benefit from leaving our customers unaware of the true potential of what they can achieve.

Professionalism

Digren Energy ensures all staff are adequately trained for dealing with customers. We operate and maintain an Employee Code of Conduct which all employees are required to abide by.

Customer Focused

Our customer focus is integral to the culture of our business and the management of a good customer journey is key to our continued growth.



Energy Procurement

Reviewing your entire utility services can be time intensive, confusing and complex. No two businesses are the same, so Digren Energy take the time to understand your company and utilise years of market insight and experience, couple with outstanding industry relationships to advise on the best options available.

Energy Management

It's not just the price of your utility tariffs which can cause excessive bills. Variables such as building heat loss, ineffective light & heating systems, waste energy or an incorrect substation power allocation could all inflate your annual utility costs. Digren Energy use our expertise to review all aspects of your utility consumption and advise on how to keep your utility costs to a minimum.

Energy Efficiency

Digren Energy are heavily invested in helping clients understand and unlock the potential in the next generation of utility technology. Focusing on conservation, clean energy and sustainability, we help businesses to stay ahead of the curve and invest in long term, profitable alternatives to the inefficient products and services currently used.

Risk Management

Today's energy markets can be convoluted and unstable. With cost reduction being a key indicator it is important to implement a purchasing strategy which spotlights risk management. Digren Energy focuses on providing cost effective energy procurement with protection in surging markets.

Digren

PROCUREMENT

Our Approach



Understanding

We start by taking the time to understand your business, your energy habits and what plans you have going forward that might impact your utilities. We then speak to your supplier and networks to ask them for all the intricate details in your contract you might not currently understand or be aware of.

Analyse

Once we have received all the necessary information from you, your supplier and networks we will check to make sure all aspects of your service is sustainable and economical. We're also able to provide added analysis (if required) through services such as energy monitoring and energy audits.

Negotiate

If changes need to be made to your utilities Digren Energy can work on your behalf to secure the best possible supply at an optimum price. We're an independent consultancy, which means alongside the preferential rates we get from our partners we can also look at the whole market to make sure you're getting the right service.

Support

At Digren Energy we value the ongoing relationships with our clients. Once we've ensured you're getting the most out of your utilities, we keep you updated on changes in the industry and how they might affect you. We also provide you with regular updates on your energy usage and can alert you if any usage changes might affect your service.

The infographic is titled "5 Step Procurement Strategy" and features the Digren Energy Management logo at the top left. The background is a blue-tinted image of power lines. The text is as follows:

5 Step Procurement Strategy

Energy management can be complex and time consuming. There is an abundance of information available which in many cases only complicates the issue. Digren Energy is an independent Irish owned energy consultancy practice who's objective is to help you implement an energy plan for your organisation.

What is the difference between energy management and energy awareness?

Energy Awareness is simply applying a common sense strategy to energy – turning off lights and equipment that are not needed. Energy management is assessing all your energy requirements and implementing an energy plan to allow you to control your energy, to reduce consumption where possible and ultimately to eliminate energy wastage.

Where do I start?

In putting together an energy management plan the first place to start is to examine the rates you are currently on. Most providers and brokers focus on your unit rate when providing you with contractual quotes. However, the unit rate is not what you pay. What you pay is the total cost on your bill divided by your consumption (kWh) for that month. That real figure is significantly higher than the unit rate quoted. The reason for this is simple – the provider is only responsible for the rate. All of the other charges are from networks or are government set.

A close-up photograph of a utility bill, showing a bar chart with several bars of varying heights and the text "Daily kWh" visible at the bottom.

Digren METER PROFILING

A key part of a profile audit is to identify the quick fix. Ensuring an organisation is on the correct tariff and has the correct load capacity is essential.

A detailed profile analysis is necessary to assess a clients' current position in the energy market and to determine the best purchase strategy moving forward.



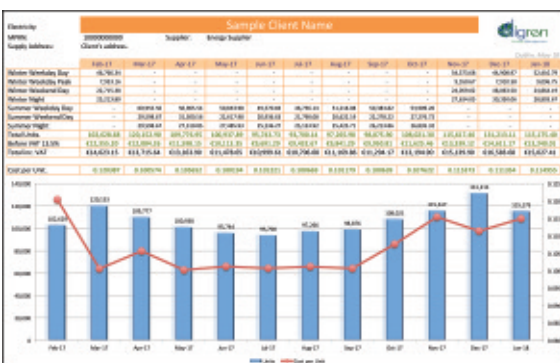
Energy Profile Analysis

Deregulation of the energy market in Ireland provided customers with options. There are now a number of providers on the Irish Market. The main Providers being Bord Gais, Electric Ireland, Energia and SSE Airtricity. In addition, there are some smaller providers in Ireland and more recently an influx of UK and Canadian Brokers offering Gas and Electricity contracts on behalf of the Providers.

However, it is important to understand that the Providers are only responsible for selling the end of use product. They are not responsible for the transmission or distribution. The responsibility for this lies with ESB Networks (Electricity) and GAS Networks (GAS).

The transmission and distribution costs are dictated by the relevant responsible networks and the provider has no influence over these.

The providers are responsible for the unit rate only. The providers are responsible for the collection of transmission and distribution charges for the Networks which is why they appear on your energy bill.



The commercial electricity market can often be a confusing place. With multiple suppliers and tariffs to choose from it's often difficult to know where to turn. Digren Energy provide businesses with a comprehensive and easy to understand service which takes the pressure, time & effort away; leaving you to focus on what's important.

kVA Analysis

Often overlooked by brokers and suppliers, your kVA allowance is the amount of energy reserved at the substation for your meter. Charged within your tariff, Digren Energy analyse your energy consumption to ensure you aren't being overcharged for wasted energy and are only paying for what you use.

Energy Reporting

Monitoring energy habits and patterns help to identify when you consume the most electricity. Digren Energy is able to provide regular energy reports which detail whether seasonal or time changes affect your costs. Our experts can then offer advice on the best ways to adapt your business to become more energy efficient.

Smart Metering

Smart meters can automatically send meter readings to your supplier, getting rid of estimated bills and making sure you have clarity in how much energy you are using. Digren Energy can help to install and future proof your business today.

Energy Audits

It's not just your energy tariff that could need a review. With technology & equipments evolving and becoming more economical, your high consumption electrical components could be replaced with an energy-efficient counterpart. Digren Energy can arrange for a bespoke energy audit to review whether your business is operating at peak efficiency.

Incentives

A variety of incentives are available for businesses who support energy efficiency, encourage the use of renewable energy sources and reduce their carbon footprint. Digren Energy are able to advise on what may be available to your business and how best to apply.

Risk Management

Factors such as uncertainty in climate policy, political intervention, and regulatory changes mean the utility market is an extremely volatile place. Digren Energy have specialists in place to monitor the energy market and proactively respond to these changes, ensuring you aren't left behind the curve.



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UTILITIES: GAS



Gas supplies now come from a range of diverse sources, both in the UK and imported from around the world. Finding the right tariff for your business can often be time consuming and challenging, so Digren Energy offer a wide range of solutions to make your service easier to manage and maintain.

Tariff Comparison

Whilst some contracts may look simple on the surface, hidden charges and levies could lead to bills becoming inflated and unexpectedly high.

Digren Energy will benchmark your prices against the whole marketplace to make sure your tariff is competitive and if necessary, renegotiate you a better rate.

Emission Analysis

With an increase in pressure from the government for companies to reduce their carbon emissions, it's important to fully understand what imprint your business has and whether a reduction could save you money. Digren Energy can calculate how much of an impact your utilities are having on your carbon footprint and what can be done to reach these lower targets.

Industry Insight

The wholesale gas market is a continually changing environment. Much like electricity, gas prices can change overnight and can inflate a consumer's rate without warning. Digren Energy have specialists in place who advise on how changes in the market could affect clients and look to proactively prevent unwanted price hikes.

Heating Solutions

Heat inefficiency in the workplace can have a major influence on the cost of your utilities. Heat loss from ineffective ventilation and older, less economical boilers can lead to increased costs and expensive maintenance. Digren Energy can provide a comprehensive consultation on heating solutions for your business and ensure you're running at maximum efficiency.

Pipework & Metering

Any pipework downstream of the meter installation is the responsibility of the property owner, and it is important that this pipework is maintained and properly checked on a regular basis. Digren Energy can help arrange suitable inspection and installation of any private gas supply.

Combined Heat & Power (CHP)

Combined Heat & Power (CHP) is the simultaneous generation of both electricity and gas for your business. Suitable for businesses of all sizes as well as some residential premises. Digren Energy can advise on a range of CHP boiler solutions for those who are looking to utilise the potential savings generated from combined utility units.




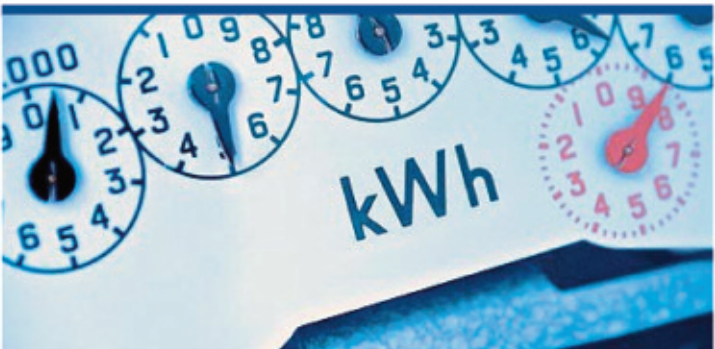
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ENERGY MANAGEMENT




Energy management requires active participation from management within the organisation.

Smart monitoring/control systems.

Energy Management

Energy management includes the planning and the operation of energy resources and energy consumption. Objectives are resource conservation and cost savings, while the users have permanent access to the energy they need. It is connected closely to environmental management, production management, logistics and other established business functions.



"Energy management is the proactive, organised and systematic coordination of procurement, conversion, distribution and use of energy to meet the requirements, taking into account environmental and economic objectives"

Top Energy Management Challenges

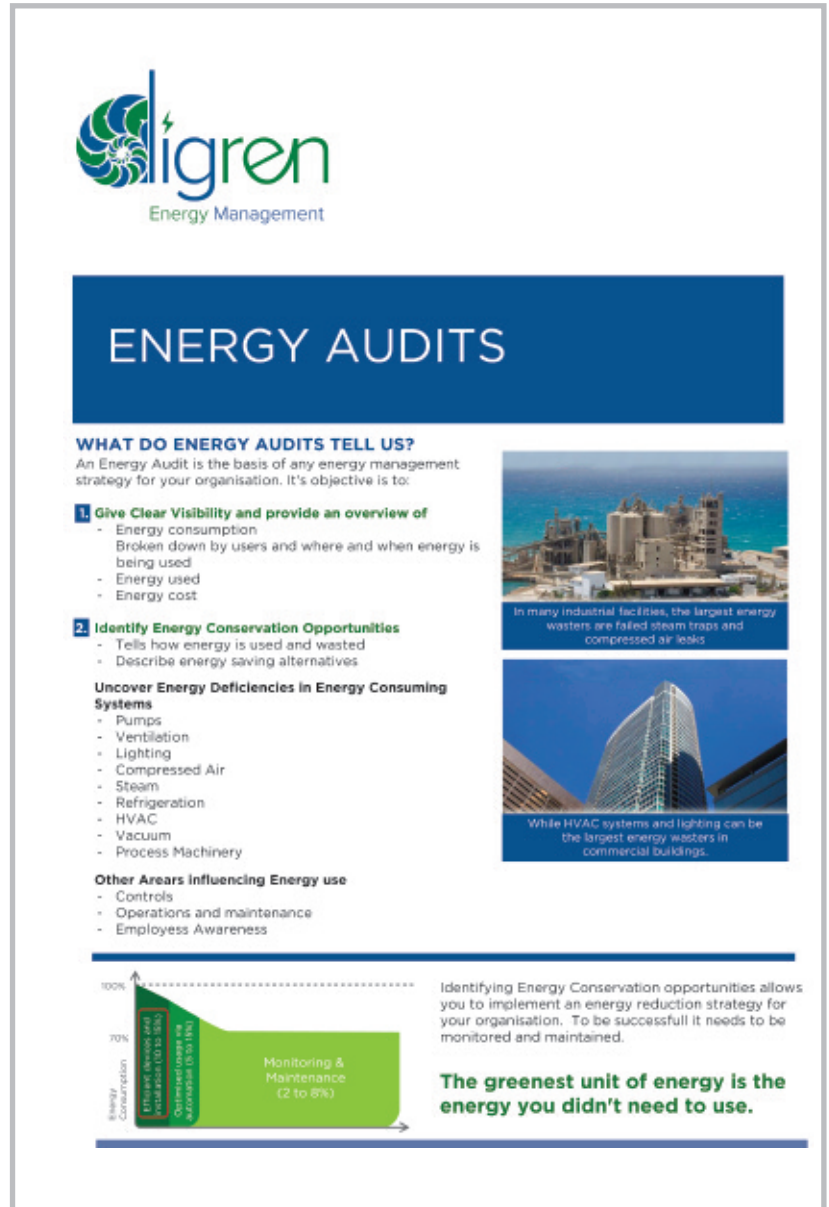


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ENERGY AUDITS

The audit document needs to be comprehensive in detail to assess feasibility of any planned projects.

At the same time it needs to be understood clearly by all involved – primarily, the organisation’s management.



digren
Energy Management

ENERGY AUDITS

WHAT DO ENERGY AUDITS TELL US?
An Energy Audit is the basis of any energy management strategy for your organisation. It's objective is to:


- 1. Give Clear Visibility and provide an overview of**
 - Energy consumption
 - Broken down by users and where and when energy is being used
 - Energy used
 - Energy cost
- 2. Identify Energy Conservation Opportunities**
 - Tells how energy is used and wasted
 - Describe energy saving alternatives

Uncover Energy Deficiencies in Energy Consuming Systems


- Pumps
- Ventilation
- Lighting
- Compressed Air
- Steam
- Refrigeration
- HVAC
- Vacuum
- Process Machinery

Other Areas Influencing Energy use

- Controls
- Operations and maintenance
- Employees Awareness



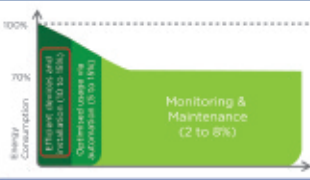
In many industrial facilities, the largest energy wasters are failed steam traps and compressed air leaks



While HVAC systems and lighting can be the largest energy wasters in commercial buildings.

Identifying Energy Conservation opportunities allows you to implement an energy reduction strategy for your organisation. To be successful it needs to be monitored and maintained.


The greenest unit of energy is the energy you didn't need to use.





The chart shows energy consumption starting at 100% and decreasing through several stages: 1. Energy Conservation (10% to 90%), 2. Energy Conservation (10% to 80%), 3. Energy Conservation (10% to 70%), 4. Energy Conservation (10% to 60%), 5. Energy Conservation (10% to 50%), 6. Energy Conservation (10% to 40%), 7. Energy Conservation (10% to 30%), 8. Energy Conservation (10% to 20%), 9. Energy Conservation (10% to 10%), 10. Monitoring & Maintenance (2 to 8%).

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ENERGY EFFICIENCY

 Energy efficiency begins with an organisation's Energy Management Plan (EMP).

 It takes time and resources to implement the EMP.

 A complete understanding of where you use your energy is necessary before a sustainable efficiency program can be implemented.



Understanding ENERGY EFFICIENCY

In simple terms energy efficiency, is the goal to reduce the amount of energy required to provide products and services and to allow a building to use less heating and cooling energy to achieve and maintain a comfortable temperature. Improvements in energy efficiency are generally achieved by adopting a more efficient technology or production process or by application of commonly accepted methods to reduce energy losses.

There are many motivations to improve energy efficiency. Reducing energy use reduces energy costs and may result in a financial cost saving to consumers if the energy savings offset any additional costs of implementing an energy efficient program.

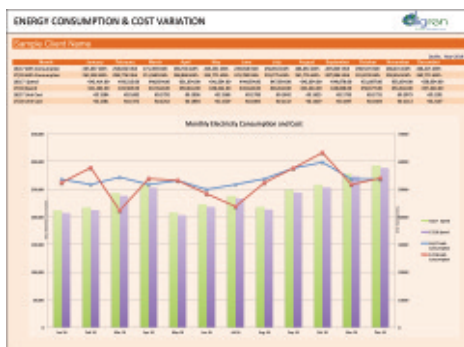
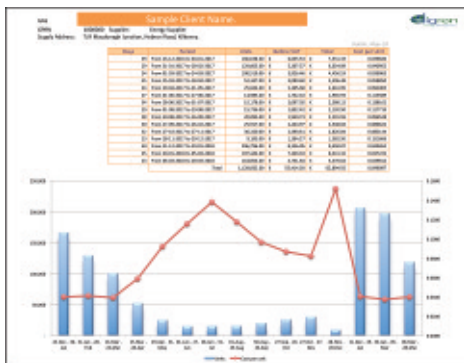
4 Steps to Energy Efficiency

- 1 Audit & Measure** → Energy Audits
Energy Meters - Water Air Gas
- 2 Fix the Basics** → Low consumption devices & equipment
Building Materials
Power quality / Reliability issues
- 3 Automate** → BMS - Building Management Systems
Lighting control systems
Motor control systems
- 4 Monitor & Improve** → Energy Management Software
Facilities Management software
Remote monitoring systems

In a commercial environment the definition of Energy Efficiency is the act of reducing consumption while achieving the same results.


Digren MONITORING & REPORTING

- Monitoring is a necessity to measure and verify actual consumption reduction.
- Reporting is essential for budgeting, risk management and bench marking. Each large energy user receives clear concise easy to understand monthly reports with just relevant key information.






A part of an energy audit is to carry out a voltage survey.


These results indicate whether or not the organisation would benefit from voltage optimisation (power factor correction).



AN OVERVIEW TO Voltage Optimisation


246 Volts
➔

220 Volts
➔


Reducing energy consumption is key to cutting bills, lowering carbon emissions and reducing exposure to fluctuating energy prices.



About voltage optimisation

Voltage optimisation is the reduction and stabilisation of incoming electricity supply voltage to a level that the equipment in a building requires.

Historically, the supply voltage in Ireland and the UK has been set at 240VAC +/- 6%, effectively giving a supply voltage spread of 226VAC to 254VAC. For three-phase supplies the voltage was 415VAC +/- 6%, the spread being from 390 V to 440V.

All generation, distribution and transmission equipment has been set up to deliver this voltage, within this tolerance.

European Harmonisation (EN 50160:2007) has seen the supply voltage standardised across the EU at 230VAC +/- 10%, giving a supply voltage range of 207V to 253V. For three-phase supplies the voltage is 400VAC +10% -6%, the spread being from 360VAC to 440VAC.

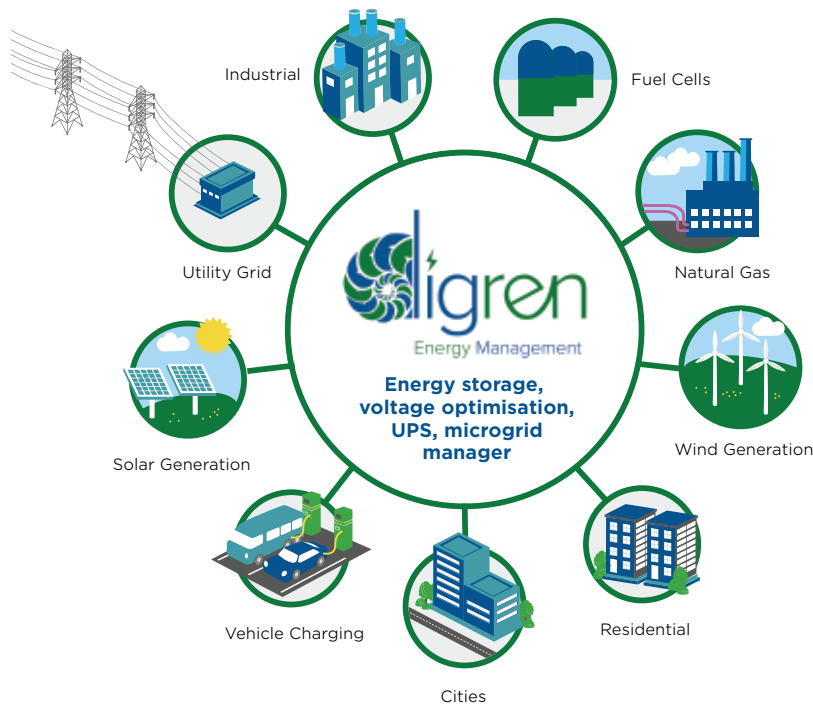
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ENERGY STORAGE SOLUTIONS

Driven by advances in technology and communications, the way we supply and consume electricity will look very different in the future.

The traditional model of large thermal power stations will be replaced by the Internet of Energy: a highly connected system of responsive power generation from both suppliers and consumers resulting in clean, secure and reliable electricity to power the homes, businesses and vehicles of tomorrow.

THE INTERNET OF THINGS



COST SAVINGS

- Minimise transmission costs (Triads)
- Minimise distribution costs (red DUoS)
- Maximum demand control
- Reduction of reactive power charges
- Average reduction of 24%* off your electricity bill (to increase to 40% by 2020)

*24% savings figures from Ofgem



POTENTIAL REVENUES

- National Grid incentives (FFR, EFR)
- Export at peak market prices
- Maximise renewable generation incomes



GENERAL BENEFITS

- Control of maximum demand
- Storing excess renewable energy
- Charging electric vehicles
- Full UPS capabilities

Digren

PROJECT FUNDING

Finding funding for a project can be a minefield. There are many options available to clients ranging from fully funded projects to grant assisted. As with projects each option carries pros and cons. We present each option clearly and make recommendations to best suit a clients specific requirements - both short term and long term.

The types of projects considered, but are not limited to are:

- General Energy Reduction Projects
- Lighting
- HVAC
- Energy Storage
- Voltage Optimisation
- Energy Generation





Power generators, distributors and suppliers of gas and electricity have a common objective to reduce consumption.


This means to reduce consumption to efficient levels - effectively eliminating waste.




Digren ENERGY BUREAU

The Digren Energy Bureau is tailored to suit all energy users. Whether you are an SME using 500,000 kWh - 4GW per year or a large energy user using >4GW our energy bureau can work for you. The objective of the bureau is to form a partnership with a shared objective to reduce consumption and control energy consumption. A partnership like this doesn't happen over night, it takes time to build. However, from the very beginning there should be a clear indication of expectations on both sides. Therefore, our Energy Bureau contract has been designed with simplicity in mind to give Digren the tools needed to achieve results and to give the clients easy terms for termination of the Energy Bureau contract.

-  Partner with digren energy to maximise savings and reduce consumption.
-  Receive monthly management reports.
-  Develop and manage your EMP.
-  Avail of digren energy affinity deals.



Energy Bureau



It can be very frustrating managing energy costs. Notwithstanding, dealing with providers customer service departments. Budgeting costs, only to discover a provider has deducted a higher amount from your account can be challenging.

There are many energy brokers, consultants and management companies in the industry to choose from. At Digren Energy we like to think we operate a little differently to our competitors. We genuinely believe in developing longterm relationships with our clients. The reality is that it takes 3 to 5 years to drop energy consumption. The exception to this is if you have large amounts of available capital to invest in energy saving projects. Most of our clients appreciate our common sense approach to energy reduction.

One of the most important aspects of managing energy is controlling the costs - not just on capital expenditure but also contractual expenditure.

“ The **GREENEST** unit of energy is the energy you didn't have to use ”



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