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PowerSource provides complete project services from design stage through to procurement and implementation of solutions as well as partial sales oriented supply of parts and smarts for a number of energy system types and solutions.

We carry standard and premium international brands with products for energy, waste and general efficiency (including Internet of Things - IoT) solutions. We should have what you need for your project and its goals - and if not, we will help you find it.

#### Meet Some of Our Brand Partners:























#### **WHO WE ARE**

PowerSource is the divested implementation and product distribution partner of ECHOS Consulting Limited. When the clients of ECHOS asked for clarity between the firm's products and services, the board of ECHOS decided to fully remove its product and hardware portfolio and team and trust this expertise to a separate company - PowerSource. PowerSource therefore delivers to the quality and value expected of ECHOS but with a focus that is that much more effective, and driven by its own team of professionals. We here to deliver your goals and to remove your headaches while putting the power back into your hands.

#### WHAT WE DO

Let's talk. Let's win.

PowerSource deliver solutions for clients, sometimes even when they do not realize they need them. PowerSource, though new, has a team with well over 60 years combined experience in troubleshooting and delivering energy and commercial waste solutions for our clients. Whether your project requires window heat treatments, insulation for any application, sun control, energy conservation, energy efficiency, or even the application and implementation of alternative and renewable energy models such as solar photovoltaics, PowerSource is your best stop. We're not the cheapest, we don't aim to be - we instead aim to be the best.

### **OUR CLIENTS ALWAYS WIN**

We never give up! Every project you bring to us is different and our team knows this so they spend he time and effort required to deliver solutions for you that our competitors do not. When you call on PowerSource, you will know within your first conversation that you have made the right call. You may not always hear what you want to hear, but you will realize that what you hear is what you NEED to hear to make sure your decisions actually deliver your goals without disappointment. Bear in mind that sometimes what you think you want and what you actually need may have nothing common. Come in, call in or send us an email.

#### CHANGE THE WAY YOU THINK ABOUT ENERGY.

### EFFICIENT LIGHTING SOLUTIONS

LED lights are the future of lighting and PowerSource provides lighting solutions for commercial, residential and agricultural purposes. All our lights are factory-direct, designed for the specific grid conditions in the region and come with 3-year and 5-year manufacturers' warranties. Quality is of prime importance and our lights will outshine the competition foar years to come.

PowerSource also provides solar-integrated lighting solutions perfect for stand-alone, off-beat, off-grid, or simply independent lighting solutions. Contact us today for the latest pricing and functionality in lighting.

## SMART ENERGY SOLUTIONS

The GEM Link® Wireless energy management system is equally applicable for hotel guestrooms, school/college classrooms and dorms, multi-bedroom vacation rental homes, military lodging facilities, offices and other areas which are physically unoccupied for long periods of time. Lodging Technology is the industry leader in hotel energy management and our Gem Link® system has proven to reduce wasteful HVAC consumption by 35% to 45% in hotels around the world. Our standalone products and our integrated energy management thermostat can manage any HVAC system of any age, manufacturer, model or voltage.





### SOLAR PROCESS HEATING & COOLING

PowerSource was fundamentally involved with the first commercial solar thermal cooling system developed and implemented in the Caribbean. We maybe able to replace your entire process cooling and or heating loads be it for brewing, broiling or even air-conditioning. Our solutions are designed and built to international standards and come with 20-year life-expectancy and 10-year warranties [minimum].

### ALTERNATIVE ENERGY SOLUTIONS

Solar energy solutions have long been accessible and affordable in the Caribbean in both photovoltaic and hot-water solutions. Given the high price of fossil-fuel based energy, the cost solar technologies will only get better with time. Powersource provides residential, commercial, industrial and investment-grade solar PV and thermal solutions through factory- and manufacturer-direct relationships, thus providing best quality and output per investment dollar. Come in and talk to us about the solutions that best suit your needs.

### **BIO-ENERGY-FROM-WASTE**

PowerSource provides complete project services for waste-to-energy plants using advanced modern technologies. We work with our design and research partners to develop and construct the facilities and through to operational commissioning of all the energy technologies we promote. Our manufacturing partners help us to deliver high-quality project implementation and full client satisfaction.





**RESIDENTIAL LED LIGHTING** 

PowerSource offers residential LED lighting solutions for all your needs including special lighting designs including; candelabra (chandelier), regular LED E27 (Edison based) lights, and outdoor LED lights (waterproof).

Our lights are brighter than you expect and use less than 50% of the power of your existing lighting, in some cases, we may be able to save as much as 90% of your present lighting costs - savings potential is dependent on your current lighting practices. Let us have a meaningful conversation about how you can source and install LEDs to reduce your lighting expenses with immediate effect.



### COMMERCIAL & OFFICE LED LIGHTING

**PowerSource** carries a range of LED tube lights with warranties from 2 - 5 years and even with replaceable and exchangeable drivers. Our lighting solutions can be plain or decorative. Give us a call today and let us give you a quality light that will live and provide your money's worth in effectiveness and in energy savings.

## STREET & SECURITY LED LIGHTING

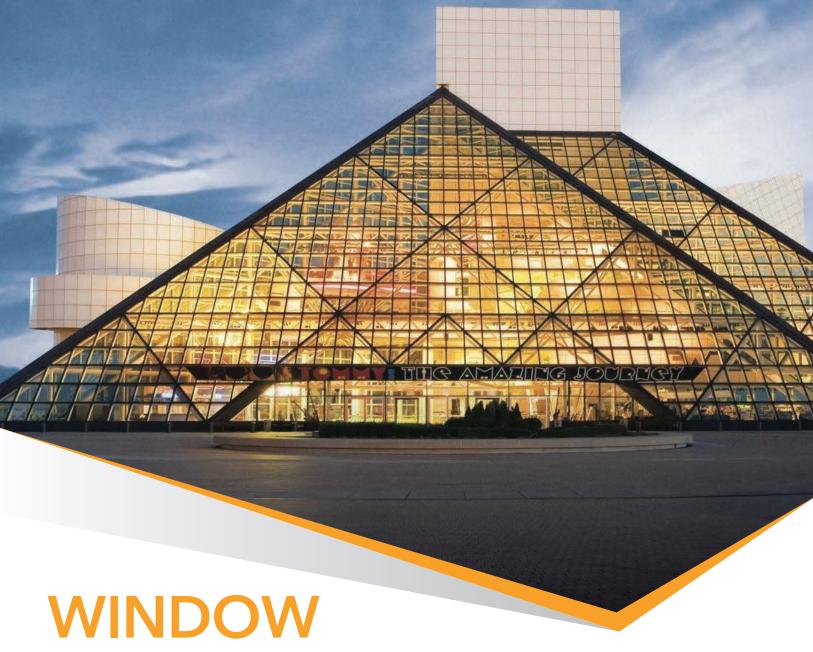
LED streetlights are the future of outdoor commercial and industrial lighting and PowerSource provides solutions for commercial, residential and agricultural purposes.

All our lights are factory-direct, designed for the specific grid conditions in the region and come with 3-year warranties. Quality is of prime importance and our lights will outshine the competition for years to come.

### SPECIALIZED AGRICULTURAL LIGHTING

PowerSource provides agricultural lighting for poultry growers and pig breeders. These lights are made specifically for the animals selected and encourages better feed conversion, better growth patters, and more energy-efficient farming operations overall.





# FILM SOLUTIONS

### 3M SUN CONTROL WINDOW FILMS

Clearly superior. Designed to maintain the appearance of your home, Prestige Series films combine lower than glass reflectivity with film options that allow most of the light into your home. Prestige Series films allow 40% to 70% of the natural light into your home. The only thing you'll see day or night, inside or out, is a beautiful window. Solar heat comes from two primary sources, the visible light you can see and the infrared light you can feel. Prestige Series window films use non-metallized, multi-layer optical film and nano-technology to reject up to 97% of the sun's infrared light and reject up to 60% of the heat coming through your windows. These films also reject up to 99.9% of damaging UV rays to reduce fading of your furnishings. These industry-leading, spectrally-selective films are designed to keep you cool, comfortable and protected.



### 3M SAFETY & SECURITY WINDOW FILMS

Feel The 3M Difference. There are many window film dealers and installers in Jamaica, but only ECHOS has been chosen to be part of the 3M network. Our 3M Authorized Installers are available to help solve problems such as energy savings, reducing fading and glare whether in your home, business or even in your car. Improving comfort and protecting people and property is a hallmark of 3M Window films. 3M invented window films in 1966 and their innovative window film products have provided protection from the sun's harmful rays for more than 40 years. Put the innovation of 3M to work for you.

### 3M™ ARCHITECTURAL DESIGN FILMS

#### GLASS FINISHES FOR WINDOWS, DOORS AND OTHER GLASS SURFACES

Decorative films for glass surfaces. Our decorative glass films provide the look and feel of etched, cut sandblast and textured glass. Apply the film to virtually any glass surface from entrances, doors, windows and partitions to ceilings, balconies stairwells and more. The films require no extra hardware or infrastructure, and no additional maintenance or special cleaning. With hundreds of patterns you can find a pattern that provides the perfect combination. The lines provide the advantages of Etched, Cut, Sandblasted, and Textured Glass at a fraction of the cost of traditional patterned or Sand blasted glass.









### **ENERGY SOLUTIONS**

### **RESIDENTIAL SOLAR SOLUTIONS**

PowerSource provides solar photovoltaic (electricity) solutions in a variety of configurations and applications ranging from complete solar installations for the entire home to smaller, simpler outdoor lighting solutions for walkways and gardens.

We have designed standardized residential systems for the Jamaican situation with our manufacturing partners and can quickly give a cost estimate and benefit outline of a solar pv system to your specific circumstances.



### COMMERCIAL & INDUSTRIAL SOLAR SOLUTIONS

We provide commercial solar solutions using solar photovoltaic and solar thermal technology to offset significant portions of your commercial energy bills.

We develop, design, install, and commission projects involving: building-integrated solar PV (electricity) • solar process heating/cooling and air-conditioning • solar generator lease programs • solar street & security lights • solar process heating & cooling

### AGRICULTURAL SOLAR SOLUTIONS

PowerSource has installed over 700KW of solar PV in the agricultural sector in Jamaica to offset electrical power consumption from the grid by approximately 1,386,000KWh per annum with a further reduction of over 300,000KWh from use of high-efficiency agriculture-specific LED lights for poultry and field activities.

See process flow overleaf.

## INVESTMENT SCALE SOLAR SOLUTIONS

We work with international design and manufacturing partners to design, manage, install and commission utility-scale solar PV projects.

Investment-grade or utility-scale solar projects are now much more common and acceptable ways of supplying electricity for municipalities whether for new residential or commercial developments or for areas where the system will supply electricity or district cooling / heating services for multiple users. In Jamaica, your utility-scale project would need to be self-consumed or you would need a license to sell power to the utility grid.

### THE PROCESS

- ASSESSMENT
  - A preliminary assessment of the location and size of your facility will reveal if opportunities exist to meet your energy and/or environmental goals. If they do, we'll conduct a thorough on-site walk-through.
- CONTRACT

We will draft a contract and appropriate purchase proposal outlining the optimal system solution for your facility base don our findings. The proposal already meets the requirements of the local banks and as such makes for a smoother process to apply for financing if necessary.

**?** INSTALLATION

You will get a turnkey installation that includes the design, project and construction management, commissioning of the installation, and coordination with your local utility to have your system operate in harmony with the municipal power grid

#### EXPERIENCE, RELIABILITY AND INTEGRITY IN THE ENERGY INDUSTRY.

PowerSource is a leading energy services company that provides competitive power supply, renewable energy, sustainability services, and cost-effective energy efficiency services for commercial, industrial, residential, and government customers.

As a full service energy services company, PowerSource has extensive experience in designing and installing energy efficiency projects and on-site generation including cogeneration and renewables

In addition, we are one of the largest competitive solar energy project developers and we pride ourselves in working with and retaining dealership status with our suppliers so that there is no middle man and you always get the best value for your dollar.

- Lower cost of energy than traditional utility supply
- Greater management of energy costs
- Improved, environmentally friendly and sustainable workplace
- Positive impact on stemming global climate change
- Fulfillment of green energy goals and promises
- Reduced greenhouse gas emissions
- Access to local financing

#### WHY CHOOSE POWERSOURCE

NCC Registered Supplier • International Solar PV Certification • Bureau of Standards Approved Equipment

Over 1MW of Solar Process Cooling & Heating Deployed • Solar PV, Cooling & Heating • Solar Hot Water Systems Biogas | Biomass Systems

24/7 Monitoring Technology • Trained Technicians • 10/25 year warranties • Service & Maintenance Commercial grid-tied systems with zero-export capability • Residential and off-grid and grid-supported systems



### **1** INCENTIVE MANAGEMENT

All requisite compliance and reporting will be taken care of by PowerSource. We file appropriate documentation with the regulatory agencies and deliver administrative support to access required approvals and incentives where these exist.

MONITORING PERFORMANCE FOR MAXIMUM BENEFIT
We'll monitor the solar PV installations for performance and billing purposes - and, you'll be able to track your facilities' solar energy output and environmental contributions via the internet 24/7.

#### **HOW IT WORKS**

Turnkey solar PV systems installed with access to local incentives and renewable energy mandates. How do we do this? By maintaining and supporting your solar PV system, while allowing you to enjoy the savings from the output.

#### RELIABLE POWER SUPPLY, UPON DEMAND

Your solar PV installation will meet an agreed portion of your total supply needs. The utility grid will meet all other supply requirements, just as they are today.

#### **SOLAR TAILORED TO YOUR NEEDS**

Not all installations require the same technology. PowerSource will design, build, monitor and maintain a system sized for your site using panels, inverters, and system components that best suit your installation needs. Solar PV is not a one-size-fits-all technology and we make sure you get your specific fit.

#### PREDICTABLE PRICE FOR POWER - A HEDGE AGAINST RISING ENERGY PRICES

A solar PV installation can help you predict and benefit significantly from energy cost increases because your solar energy generator savings increases every time grid prices increase and your payback and ROI also adjust automatically to your benefit.

#### MAKE SOLAR ENERGY A PART OF YOUR ENERGY PORTFOLIO

As a full service energy company, Echos can incorporate solar PV into your overall energy supply strategy that can include energy efficiency improvements and electricity commodity supply for your facility as well as smart/intelligent building management system implementation.

Take your next step towards effective environmental stewardship. Contact us to see how your actions today can make a brighter future tomorrow.



Blended Energy



Lower Energy Cost

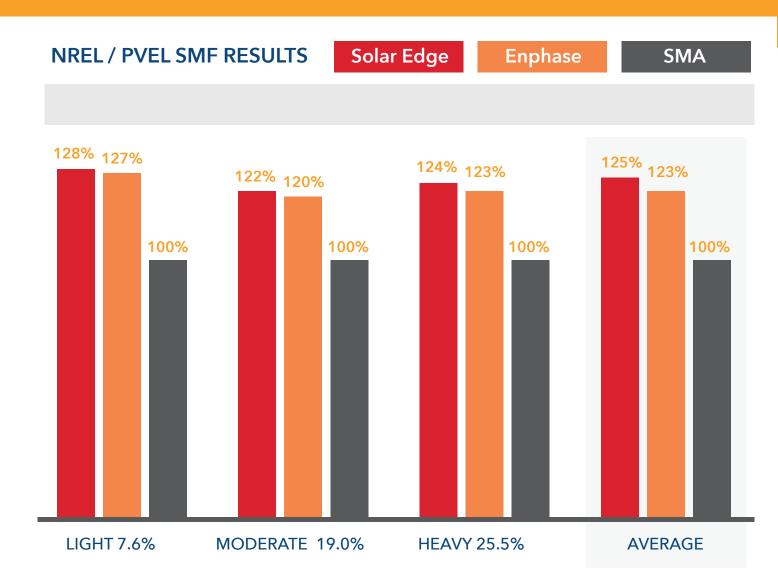


**Environmentally Sound** 

### **MAKING SOLAR POWER WORK FOR YOU**

- TIER 1 PRODUCTS
  Using only internationally certified TIER 1 solar products, Powersource works with international parties (primarily with manufacturers), to ensure direct access to technology, troubleshooting and resolution to any issues that may arise with solar energy systems we install.
- PREFERENCE FOR HIGH-EFFICIENCY PRODUCTS

  We constantly research new and emerging technologies on the international market and make these available in our offerings to our clients and prospective partners. It is part of our vision to ensure that our clients are always a step ahead with their investments in energy.



Solar power is good for the environment and good for your bottom line. PowerSource solar power can be designed, constructed, installed and maintained with the help of our local financing partners.



### **?** FINANCIAL MODELING

Every solar photovoltaic system designed and installed by Powersource is backed by a financial model that indicates our expectation and thus the client's investment guide to the financial viability of their spend. It is bankable and produced by our Certified Energy Manger(s), backed by the DBJ and a host of international energy and financial organizations.

### SYSTEM WARRANTIES

We monitor the installation for optimum performance, maintenance scheduling, and production All systems installed by Powersource are warranty-covered both locally and by the manufacturer of each piece of equipment used in your systems. Note that as energy solutions experts, our goals is to see you succeed and as such protection of your assets is as much our priority as it is yours.

### LOWER ENERGY COST IS WITHIN REACH. TAKE THE FIRST STEP TOWARDS ENVIRONMENTAL RESPONSIBILITY.

The sun is a symbol of energy and renewal. At PowerSource, we harness the sun's power to create a renewable, sustainable energy source that can help fulfill your goals of supporting sustainability and controlling your energy costs

LIGHT MODERATE HEAVY			
% of System shaded	7.6%	19.0%	25.5%
Available Energy [kWh/M²]	1813	1893	1784
SolarEdge Energy [kWh/M²]	1729	1616	1439
SMA string Inverter Energy [kWh/M²]	1697	1539	1328
Shade Mitigation Factor (SMF)	28.30%	21.90%	24.20%
Added Energy	1.9%	5%	8.4%







"PowerSources has installed a 87Kilowatt solar photovoltaic system at our operation location and we have seen tremendous savings from their work . Their customer service approach is of a high level and we definitely have no problem recommending this company to you for consideration."

~ Debbie Pedley-Bennett, CFO R&D POULTRY FARM



LIQUID FOOD COMPOSTER

Our range of Liquid Food Composter machines are designed to help all avenues of the food industry to eliminate food waste without [paying for] sending it to the landfill. We cover you from manufacturing to service and our LFC units work 24/7 to ensure you don't have any unnecessary waste and or carbon penalties. Let us assist with your waste management and environmental

sustainability programs today.



### BIO-ENERGY SYSTEMS

PowerSource designs and delivers commercial biogas solutions for our clients of all sizes. Bio-energy systems can deliver substantial savings and rewarding ROI when properly designed and system have been known to operate for well over 70 years. We are also proud to partner with our sister company Caribshare Biogas to deliver bio-energy systems on a not-for-profit basis for commercial and community partners alike.

### INDUSTRIAL WASTE-ENERGY SOLUTIONS

If your operation generates waste that may not fit the biodigester process or characteristic, you may need an industrial waste-to-energy solution.

For details on reducing your waste disposal costs and carbon footprint in Jamaica, St. Lucia, Barbados, Antigua, the Bahamas and the wider Caribbean, come talk to us. Let us explore your technology options, together.











