

Carmanah has more than 250,000 installations in 110 countries. Often used in areas of liability, our products necessitate the highest levels of performance and reliability, with the ability to pass innumerable safety standards. Demonstrating our commitment to quality, Carmanah manufactures to ISO 9001:2000 quality assurance standards and each of our products undergoes rigorous testing.

Since 1998, Carmanah has maintained a profitable average annual growth rate of 80% - a phenomenal statistic for a "green" technology manufacturer. Carmanah is a public company with common shares traded on the Canadian Toronto Stock Exchange (TSX) under the stock symbol "CMH".

**Worldwide Headquarters**

Building 4, 203 Harbour Road  
Victoria, British Columbia  
Canada V9A 3S2

Worldwide: (250) 380-0052  
Toll-Free: 1-877-722-8877 (US & Canada)  
Fax: (250) 380-0062  
E-mail: [info@carmanah.com](mailto:info@carmanah.com)

**U.S. Operations**

360 El Pueblo St. Suite 101  
Scotts Valley, CA 95066

Worldwide: (831) 440-9313  
Toll Free: 1-800-635-7497  
Fax: (831) 440-9345

**European Operations**

Basepoint Business Centre  
Metcalf Way  
Crawley RH11 7XX

Worldwide: 00 44 (0) 1293 813 980  
U.K.: (0) 870 345 9548  
Fax: 00 44 (0) 1293 817 718



**Carmanah<sup>®</sup>**

**solar solutions for the world**

CHANGE THE WORLD WITH US™

# Carmanah Technologies Corporation

Carmanah is a recognized industry leader manufacturing and distributing high quality solar products and energy-efficient technologies for use around the world. Focusing on environmentally-clean and economically-viable solutions, the products and technologies we offer make an immediate and significant impact in peoples' lives while providing real solutions that meet real needs.

## Vision

To create positive change in the world through innovative sustainable technologies, practical solutions, social responsibility and bold leadership.

## Primary Goal

To initiate the mainstream commercialization of integrated solar solutions.

Since 1996, we have been developing and refining unique solar LED lighting technologies including our patented, intelligent MICROSOURCE® energy management system, which enables our products to automatically adapt to the solar environment in which they are deployed and maximize output performance and autonomy. Today, we offer the world's most durable, energy-efficient solar LED lighting products across a wide range of industrial applications. These products have been field-proven in some of the harshest environments and are used extensively by the most demanding industrial customers.

In 2005, we expanded our suite of products to include the full range of solar power systems that are highly integrated for convenience, reliability and cost savings. The applications are practically endless and customer expectations are high. Our productized approach to power solutions sets us apart to ensure these expectations are met.

Built upon a heritage of quality and innovation, our products are sold in a variety of markets, both domestically and internationally, through the following distinct technology groups:

- ✦ Solar LED Lighting Solutions
- ✦ Solar Power Systems
  - Grid Tie
  - Off Grid

Through the creative and practical application of solar and energy-efficient technologies, our mission is to create a positive change in the world. With a team that has already grown to more than 250 people and a network of hundreds of authorized distributors and sales agents worldwide, we welcome the challenge. To achieve this goal, the technology, product solutions and customer service offered must continue to set the benchmark in the industry; this is what we strive to accomplish every day.

CHANGE THE WORLD WITH US™

Solar Marine Lighting



Solar Obstruction Lighting



Solar Transit Lighting



Fully Integrated Solar Power Systems



Residential Solar Power Systems



Solar Aviation Lighting



Solar Roadways Lighting



Solar General Lighting



Industrial Solar Power Systems



Mobile Power Systems



- We are the innovators of the world's first self-contained, solar-powered LED marine lanterns.
- Our marine lanterns are the most durable and reliable in the aids-to-navigation industry, and generate considerable time and cost savings for our customers.
- Approved by the U.S. Coast Guard for use in the U.S. Aids to Navigation System, our 700 Series self-contained, solar LED-based marine lanterns are their primary solution.
- We manufacture solar LED marine lanterns with 1 to 5 nautical miles of visibility.
- Our solar LED marine lanterns are engineered to meet or exceed recommendations made by industry organizations such as IALA, IMO, NEMA and IP. As well, our solar marine lanterns meet US Coast Guard requirements in section 33 CFR part 66 for Private Aids to Navigation.



## Solar Marine Lighting Solutions



1. Solar marine lanterns range from 1 to 5 miles of visibility 2. Unsurpassed durability; survived submersions under ice, category 5 hurricanes, collisions with ships, and much more 3. Easy to install, but mounts securely with custom security bolts 4. Compact, self-contained design; yet powerful and long-lasting





- Our solar-powered LED aviation lights are used extensively worldwide as permanent, portable and temporary lighting solutions for commercial, defense and private applications.
- Applications include runway lighting, taxiway lighting, helipad lighting, barricade and obstruction lighting, elevated runway guard lighting, windsock lighting, and emergency lighting.
- Our Model A704-5 wireless solar lights are the most advanced solar LED aviation lights on the market with optional wireless control, visible and infrared LEDs, and user programmable switch. As well, our Model A601 lights are widely used by defense forces as well as hundreds of commercial airports worldwide.
- We are a GSA supplier (# GS-07F-0513M) and the primary supplier of solar LED lighting to all NATO, Defense and US Forces.

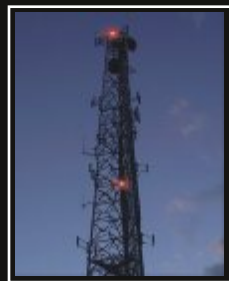
## Solar Aviation Lighting Solutions



1. The model A704-5 is powerful and compact, with optional wireless control 2. Ideal for expedited runway applications 3. Field-proven to withstand harsh environments, even jet blasts 4. With patented MICROSOURCE™ and Automatic Light Control (ALC) technology, our solar lights are clearly visible at night

AVIATION

- Our solar LED obstruction lights are used worldwide for diverse hazard marking applications such as towers, wind turbines, rail crossings, mining, oil and gas, cable car cabling, fences and bridges.
- Our solar LED obstruction lighting products are perfectly suited for areas with limited or no access to conventional power sources, and where reliability and zero maintenance are substantial benefits.
- Unaffected by lightning-based power surges, our solar obstruction lights are more reliable than conventional-type warning lights.



## Solar Obstruction Lighting Solutions



1. Increases safety at worksites 2. No external wiring or cable trenching; installs almost anywhere 3. The model A702 red solar light is clearly visible, even in a lit environment 4. Model 704-5 solar LED obstruction light ICAO Annex 14 Type A 5. Mounts securely, but simple to install





- Our solar flashers and LED illuminated street-name signs increase safety for drivers and pedestrians.
- We are an official product vendor for many Departments of Transportation (DOT) throughout North America, and our traffic products are engineered to meet the stringent quality assurance standards specified by these agencies.
- Our solar flashing beacons integrate with many third party control equipment for Intelligent Transportation Systems (ITS), allowing for remote wireless control through devices such as sensors and detectors.
- With its slim design and long operating life, our internally illuminated LED street-name signs improve visibility of signs, enhancing navigation and safety in urban areas.
- Our products are sold through leading traffic distributors throughout North America.

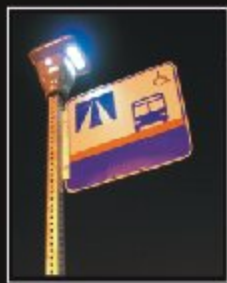
## Solar Roadway Lighting Solutions



1. Bright, even sign illumination 2. Solar school zone and pedestrian flashers successfully alert drivers to slow their speed 3. Flashing 24-7 and with no scheduled maintenance, the R247C is ideal for remote areas 4. School Zone Flashers have been found to reduce average speeds by 5-7 mph.

TRANSIT

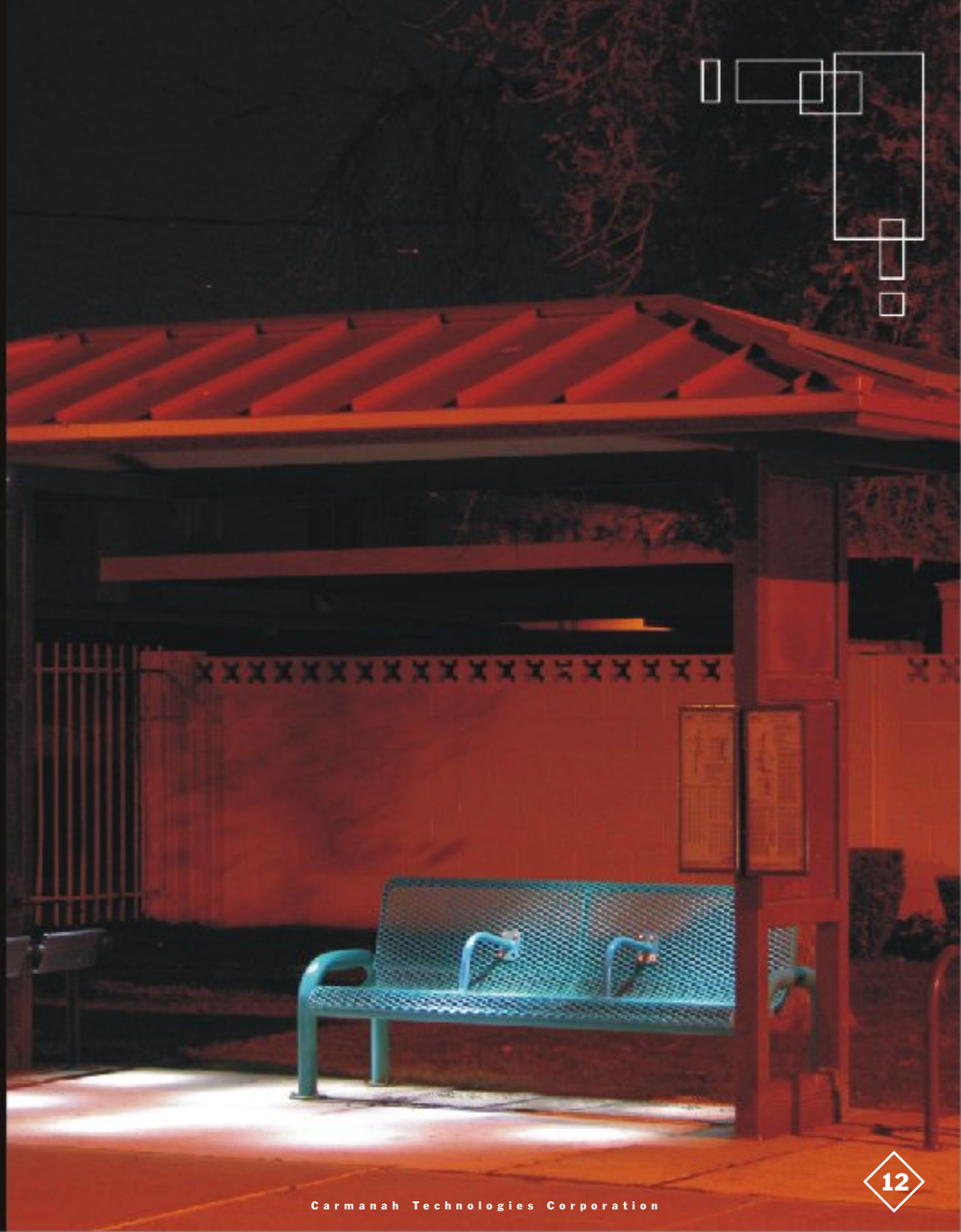
- The i-STOP® solar-powered LED transit stop lighting system meets UL and Canadian Standards Association (CSA) standards and bears the ETL Listed Mark, certifying that it has been successfully tested to these standards.
- Our i-STOP® solar-powered transit stop is the only product of its kind in the transit industry with Underwriters Laboratories (UL) approval and NCHRP 350 approval.
- Installing our i-SHELTER™ solar-powered shelter lighting systems can reduce a city's greenhouse gas emissions by more than 37,000 tonnes over 10 years.
- Our patented i-SIGNAL™ bus signaling unit is the transit industry's only solar LED bus signaling device.
- Leading transit authorities across North America and many more internationally, utilize our solar-powered LED bus stop lighting applications.



## Solar Transit Lighting Solutions



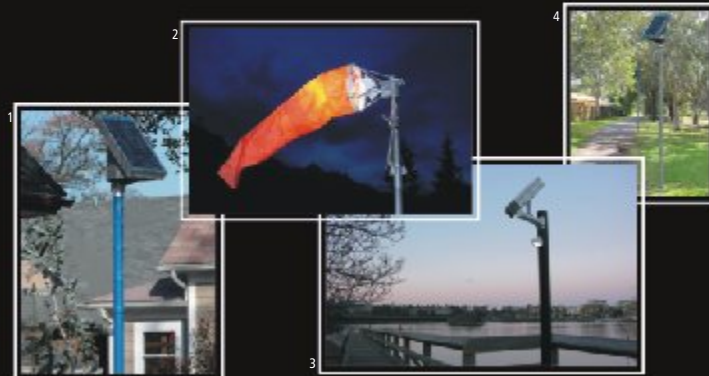
1. i-STOP® features self-illuminating ADA compliant stainless steel buttons with braille label and ID plate for visually impaired persons 2. Discreet, securely mounted solar panels 3. Powering advertising panels with solar eliminates high operating costs 4. Fast, simple installation, no trenching, no wiring 5. Operates reliably around the world, example installation in the UK for London Bus





- While typically used for security, sign, or general area lighting such as for pathway and parking-lot kiosk lighting, the applications for our solar-powered LED general lighting products are virtually limitless.
- Our general lighting systems provide dependable lighting without the need to connect to traditional power sources.
- Designed as a sleek, self-contained unit, Carmanah's solar-powered general lighting systems utilize our patented MICROSOURCE® Energy Management System to power the LED luminaires to the utmost efficiency.
- Installation of solar LED general lighting products is simple with no trenching or wiring required and minimal disruption to pavement or landscaping.

## Solar General Lighting Solutions



1. Solar-powered area lighting systems provide a neighbor-friendly amount of light 2. Windsock lighting for airports 3. Solar-powered walkway  
4. General lighting for parks and campuses require no trenching or landscaping 5. Lighting provides security at locations that traditionally have been too remote to connect to the grid



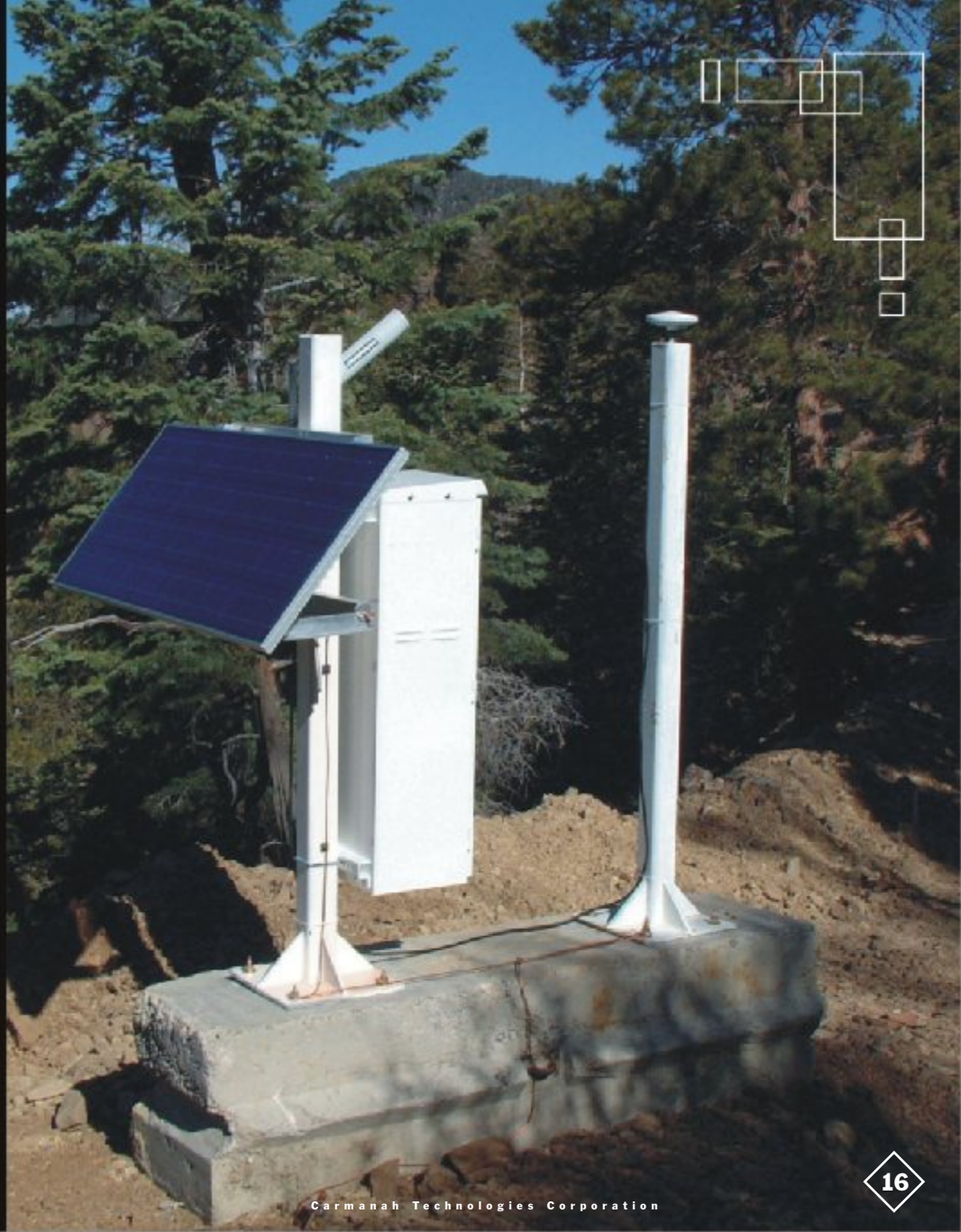
- Our Fully Integrated Modular Autonomous Photovoltaic Power Systems (MAPPS™) and solar engine provide stand alone power for WiFi, general illumination and remote security applications, environmental monitoring, GPS and RFID sensors, and numerous oil and gas well site or pipeline applications such as cathodic protection systems, RTU and SCADA systems and chemical injection packages.
- Thousands of MAPPS™ solar power systems are deployed worldwide and are proven to function flawlessly in all types of climate conditions and extremes.
- Our MAPPS™ solar power systems are available with CSA Listing in Canada or the US for Class I, Div II hazardous location applications such as oil and gas.
- The modular design of our MAPPS™ solar systems simplifies the buying decision; determine your equipment's power requirements and our technical sales staff will help you to select the system that best suits your needs.



## Fully Integrated Solar Power Systems



1. Solar-power systems are ideal for remote locations, eliminating costs associated with transporting generators, fuel and maintenance crews to isolated sites  
 2. Carmanah solar-powered SCADA monitoring systems help ensure safety as oil and gas sites; example installation in Alberta, Canada 3. Carmanah MAPPS™ solar power systems can be used for weather monitoring 4. Carmanah's MAPPS™ solar power system reliably power communications repeater sites





- We provide reliable stand-alone power systems of all scale for applications ranging from remote mountaintop repeaters, microwave relay stations and portable radio power systems to commercial grid tie systems.
- Custom designed for any scale of application, with 20 years of experience, we can insure reliable load power, even in the harshest of conditions.
- Our extensive engineering and technical sales departments include some of the most experienced staff in the solar energy industry.
- Each system comes with complete technical documentation, customized for your system, including engineering drawings and installation instructions.
- We use only proven, fit for purpose components of the highest quality for our Industrial power systems to ensure reliability, minimal maintenance and the lowest possible operational costs. In addition, we can provide remote monitoring and control packages to further reduce operational costs.

## Industrial Solar Power Systems

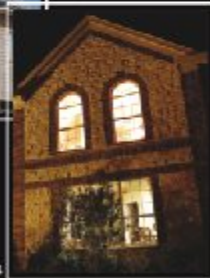


1. One of 91 large engineered Carmanah solar power systems designed for "Firenet" monitoring in Alberta 2. Solar is ideal for powering communications equipment at remote locations 3. Building Integrated Photovoltaics (BIPV) allow solar modules to double as window glass 4. Solar grid tie systems offset energy consumption for commercial applications; example installation at Exhibition Place in Toronto, Canada 5. Stand-alone photovoltaic systems to power radio repeaters and outstations

- Our solar power systems offer a level of freedom from the electrical grid, allowing you to live independently from grid power, supplement existing power demands, or install the security of a back-up power system.
- With increasingly unpredictable weather, solar power systems allow you to keep your family safe and comfortable during power outages.
- Perfect for a home or cottage, our off grid, grid tie and back-up solar power systems provide you with all the comforts of utility power, allowing you to run appliances, electronics and more without grid tie electricity.
- All our systems are professionally designed and supported systems, which mean you receive the highest quality systems and the technical support to ensure years of worry free power.



## Residential & Back-up Solar Power Systems



1. Basic solar power systems provide lighting at the summer cottage or cabin 2. Remote solar power systems allow you to have electricity as far from the traditional grid as you want 3. Off grid Residential Systems can be ground-mounted and carry up to 25-year solar panel warranties 4. Back-up power systems ensure you are prepared for emergency power outages





- Our Go Power!™ branded line of solar kits and inverters provide power on the go to RVs, boats, long-haul trucks, utility and fleet vehicles, and jobsites, as well as specialty vehicle applications.
- Our Go Power!™ solar charging kits range from 5 to 240 watts or can be customized to meet specific power requirements.
- With a variety of sizes and power outputs, from 150 - 3000 watts, our portable inverters convert DC power to AC power, required to run equipment such as computers, electronic equipment and chargers for battery powered tools.
- Inverters are easy to install and operate and, by adding a solar charging kit, you can prolong the length of time you use your inverter.
- Our versatile DURAlite modules are ideal for charging smaller batteries; for example, GPS tracking systems used in the rail and long haul trucking industries.

## Mobile Power Systems



1. Long-haul trucks use Go Power!™ inverters to gain the comforts of AC power while on the road 2. Solar-powered mobile office at a North American construction site 3. Go Power!™ 300W Inverter providing AC power for a laptop plugged into the DC outlet in a car 4. Carmanah Solar Power Systems are ideal for charging boat batteries 5. Utility truck's benefit from Go Power!™ inverters with the ability to charge AC tools and equipment at the worksite 6. Our RV Solar Power Systems provide reliable "dry-camping" experience; Scottsdale, AZ

MOBILE