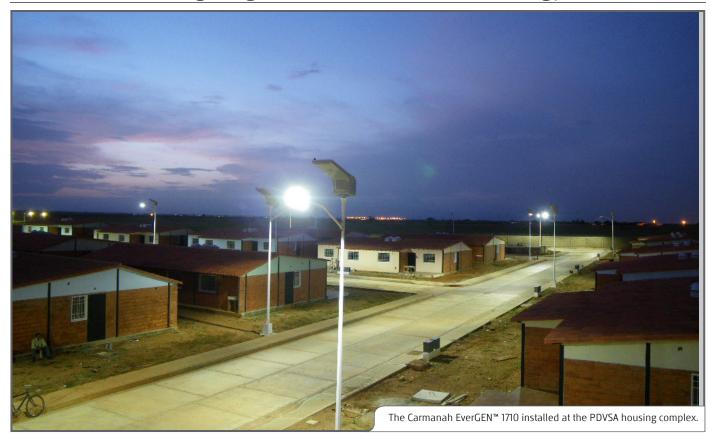


CASE STUDY

PDVSA Housing Complex - Punta de Mata, Estado Monagas, Venezuela Solar LED Street Lighting Helps Meet Renewable Energy Mandates



Project Summary

End User:

PDVSA – Dirección Corporativa de Logística

Lighting Agent:

INER Consultores, C.A.

Project Scope:

Solar LED street lighting for company owned housing complex

Product:

Carmanah EverGEN™ 1710 solar LED street lights

Benefits:

Cost savings on trenching, installation and install time. Compliance with mandate for street lighting powered by renewable energy.

Project Specification:

Systems:

33 systems IES Type II distribution – 2820 lumens Mounting height: 6.1 metres

Operating Profile:

Split Night, 5hr, 25%, 2hr: The light comes on at dusk at full intensity for five hours, then dims to 25% of full intensity, the light returns to full intensity two hours before dawn.

toll free: 1.877.722.8877 worldwide: 1.250.380.0052 carmanah.com



PDVSA Housing Complex - Punta de Mata, Estado Monagas, Venezuela

When PDVSA began to build a new staff housing complex within their company compound in Punta de Mata, Estado Monagas, Venezuela, they knew that street lighting was going to be a challenge. Not only was the local electrical grid unreliable, it was also difficult to access. Something other than conventionally powered lighting was required to do the job.

It wasn't just the circumstances of the installation that required something a little different than a conventional solution. PDVSA was also seeking to fulfill a corporate mandate to move towards ecofriendly infrastructure. The project was an important one as the street lighting would ensure the safety and security of those who lived within the housing complex. This meant that in addition to an off-grid, eco-friendly solution, PDVSA also had performance and reliability expectations to meet. With this tall order in hand, PDVSA sought the help of local green energy experts Iner Consultores.

A depth of knowledge on the many different renewable energy solutions on the market allowed Iner Consultores to assess the challenges PDVSA was facing and propose an ideal street lighting solution. After looking at all the options, the Carmanah EverGEN™ 1710 solar LED light rose to the top of the list, fitting both the off-grid requirements and eco-friendly goal of the project. The EverGEN 1710 also met the performance and quality requirements that assured PDVSA the street lights would continue to maintain the safety and security of its employees.

Engineered by Carmanah Technologies, the EverGEN 1710 is backed by years of experience in the solar LED lighting technology field. This was the kind of company experience and quality PDVSA was looking for, and once a lighting layout was complete, PDVSA was convinced. Not only did the EverGEN 1710 operate completely free of the electrical grid, avoiding the cost and challenge of trenching, the lights also provided the performance the company was looking for. In addition, the units offered a compact, self-contained lighting solution that was designed to install in 30 minutes or less, which would create additional savings on install time.

"Lighting was a central feature of our client's project," said Iliana Fernandez, President of Iner Consultores. "They were serious about their requirements. What they needed was an off-grid street lighting solution that would meet their mandates and perform to their expectations. We felt confident in recommending the EverGEN 1710 solar LED light to them, knowing that not only will the lights allow PDVSA to meet their situational challenges, they will also provide them with the performance and reliability they need long into the future."

As the first housing complex in Venezuela to feature a solar street lighting installation, the PDVSA housing complex is serving as a model of eco-friendly practices in action and an example of the performance and reliability that can be expected of leading-edge solar LED lighting such as the Carmanah EverGEN 1710.

For more information on: Carmanah Technologies, please visit: www.carmanah.com/lighting Iner Consultores please visit: www.inerconsultores.com



The Carmanah EverGEN 1710 units saved time and cost for PDVSA and helped them to meet the mandate for green infrastructure in the process.



Carmanah EverGEN 1710 solar LED lighting illuminating the roadway at the PDVSA housing complex in Punta de Mata, Estado Monagas, Venezuela.

toll free: 1.877.722.8877 worldwide: 1.250.380.0052 carmanah.com