



Power where you need it.®

Customer Success Story: Biomark

Customer Success Story: Biomark



"They're extremely reliable. I have no complaints about them at all. If there's something wrong with (a remote monitoring station), we don't worry about whether the TEG is working. We know that they work."

— Steve Anglea,
Biomark's project sales manager

**Gentherm Global Power Technologies
(GPT)**

16, 7875 – 57 Street S.E.
Calgary, Alberta, Canada T2C 2L8
Head Office: 403.236.5556
U.S. Office: 1.800.848.4113

www.genthermglobalpower.com

GENTHERM 
GLOBAL POWER TECHNOLOGIES

The Situation

Biomark Inc., based in Boise, Idaho, is a key player in the North American fish and wildlife conservation community and a worldwide leader in radio frequency identification (RFID). The company specializes in Passive Integrated Transponder (PIT) technology, which it uses primarily to help its clients monitor and ultimately boost fish populations across the continent. Biomark's clients include the U.S. Fish & Wildlife Service, the U.S. Army Corps of Engineers and Canada's Department of Fisheries and Oceans.

The Challenge

Biomark uses transceiver-powered antennae to monitor PIT tags implanted in fish as they move throughout river drainages. Many of these locations, at the headwaters of river systems, are off the grid and largely inaccessible, making remote power critical to the success of these conservation projects. Biomark had attempted to use solar power at distant locations, with limited success. Below-average insolation (exposure to the sun), above-average snow pack and constant battery maintenance hampered a great many remote monitoring stations. "Solar power is relatively expensive, and can be inconsistent in mountainous or treed areas," remarks Steve Anglea, Biomark's project sales manager. "We were looking for a relatively low-cost, efficient way to provide that power with a small footprint."

The Solution

In the fall of 2005, Biomark turned to Gentherm Global Power Technologies (Formerly Global Thermoelectric) for solution. GPT answered the bell with its renowned Thermoelectric Generator (TEG) technology — a field-tested, easily deployed solution with a price tag half the size of its solar rival.

To date, Biomark has used TEGs Model 5060 and 5120, as well as GlobalSolarHybrid systems that combine TEGs with photovoltaic panels to offer a greener solution with greater reliability.

In fact, GPT's propane-fuelled remote power systems have actually helped Biomark's clients intensify their conservation research. "With the advancement in TEG technology, we can look at survival from when the fish leaves its natal stream to the point when it returns four, five or six years later," says Anglea. "It isn't just the spawning, it's the entire life stages — which is a vast improvement."

Timing

Biomark orders its GPT remote power systems about a month in advance of the installation date of its monitoring stations. Installation is quick and easy, with assembly completed in about an hour. "I have no complaints about them at all," says Anglea. "They're pretty slick little units. We're certainly recommending them."

Results

In less than four years, GPT has been able to eliminate 99 per cent of Biomark's power problems with its bulletproof remote solutions.

In all, 15 GPT remote power systems are in service from Alaska to Louisiana, and throughout the U.S. Rocky Mountains. "They're extremely reliable," says Anglea. "If there's something wrong with (a remote monitoring station), we don't worry about whether the TEG is working. We know that they work."

