

OVER THREE  
GENERATIONS,  
BERWICK ELECTRIC  
HAS BUILT 'AN  
IMPECCABLE RECORD  
OF TRADITION FOR  
SERVICE,' QUALITIES  
APPRECIATED BY  
GIANTS SUCH AS  
  
PEPSI, AT&T,  
MCGRAW-HILL AND  
HEWLETT-PACKARD



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**ELECTRICAL CONTRACTOR  
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# Berwick's Heavyweight Reputation Draws World-Class Clients

WORKING WITH CUSTOMERS TO  
SOLVE POWER QUALITY PROBLEMS



**S**EVENTY-FIVE YEARS AGO, BERWICK ELECTRIC CO. in Colorado Springs, Colo., participated in a technology revolution. J. Douglas Berwick converted his family's carriage house from gas to electric lighting, and when neighbors wanted the same, a company was born.

Today, Berwick participates in another technology revolution. Demand for uninterrupted, high-quality electric power among high-tech firms like Hewlett-Packard, Atmel, and Symbios Logic has fueled tremendous growth.



Fully 60% of Berwick's \$27 million in gross revenue is produced by high-tech and new construction in thriving Colorado Springs. It has also driven the size of the company from 60 or so employees through the 1980s to over 200 today. Yet the company's top management attributes the success of the company to its people and commitment to service. Indeed, James L. Peterson, president, Bill Strassburg, vice president, Clay Gafford, service department manager and company secretary, all started at the company as apprentice electricians and rose through the ranks.

Douglas L. Berwick, treasurer, says, "My grandfather handed off to my father [James D.] and my father handed off to us an impeccable record and tradition for service. Our major goal is to keep it that way."

### **Power Quality Demands A Toe-To-Toe Strategy**

Barry Hinton, facilities engineering manager at Hewlett-Packard in Colorado Springs, had this to say of the company: "My regard for Berwick is very high. They are just a super company to work with. They bend over backward to meet our needs. They started with us on remodeling work and have followed on in two big projects building a data center on site. The first project was 10,000 square feet with 4,000 square feet added later."

The project extended 12,470-volt primary wiring to a transformer, 3,000-amp, three-phase, 480-volt switchgear, two 650-kilowatt standby generators, two 400kW uninterruptible power supplies with 174 wet-cell batteries, and five 125kVA power distribution units and parallel gear to supply power for critical loads. Other systems included a fire alarm, moni-

by Arthur Flax



**Hewlett-Packard's computer room project involved a 10,000-square-foot computer room and associated distribution equipment.**

toring system for the power supply, lighting, and computer equipment wiring.

High-tech industries, Peterson points out, require clean, uninterrupted sources of power. Berwick has a reputation as a company that can provide such power. Their ability to service these sophisticated systems at a moment's notice is largely responsible for the company's recent growth.

For example, at Symbios (formerly NCR Microelectronics), a 13,000-square-foot clean room required the installation of two 4,000-amp electrical services subfeeding K-rated transformers for non-linear loads. Critical

loads are monitored by a Square D power logic system. A fire alarm, evacuation system, upgraded grounding system, and 600-kilowatt generator were also installed.

"When you think of clean rooms and computer rooms, you think of power quality," says Peterson. "Fab [clean rooms for computer chip manufacturing] equipment, telephone switches, like those we have installed for AT&T and U.S. West, it is important that they have clean power. Even Cripple Creek Casinos require clean power. Slot machines today are computers."

Berwick's high-tech expertise led to the formation of a new "Power



Quality" department.

Gafford adds, "Many times a computer consultant will have come into a company and found that the system is fine, but that power [issues] are causing a problem. We can go in with the meters necessary to analyze the power." For example, the local Pepsi-Cola bottling and distribution company was having problems with its assembly line equipment. Berwick

### Fast Service Punches In Performance

Although high-tech and contract work represents 60% of the company's business, delivering fast service remains of utmost importance. Service represents about 35% of the company's business (and the Power Quality department represents about 5% of the service department). Clean rooms or "fabs" work 24 hours a day,

says. "We have that ability."

Gafford adds, "Servicing high-tech industries quickly is important. But when a french fryer goes down in a restaurant on a Saturday night, it is no less important to the owner of that business that we are available to repair it." He also points out that the \$50 residential repair job remains an important part of the Berwick business. Though service of that

nature accounts for only 3% of the company's revenues, it exceeds the larger jobs in number.

But is the company really prepared for such quick maneuvers? The company has 27 vans for service work, as well as digger- and bucket-equipped trucks, and is located just outside of downtown in a 12,000-square-foot building. Berwick is well-positioned to build its list of service contracts, which by the way, reads like a "Who's Who" of business in Colorado Springs: Colorado Interstate Gas, El Paso County, City of Colorado Springs, Atmel Corp., Symbios, Kaman Sciences, Hewlett-Packard, Apple Computers, U.S. West,

Sprint, and AT&T. They also have quite a few service contracts for major property managers, including Cushman & Wakefield and Frederick Ross.

"My dad bought the property in 1953 because he could walk to the bank. We have immediate access to downtown and the east-west and north-south corridors. The Regional Building Department is next door. And two major electrical supply



***The Midnight Rose Hotel & Casino in historic Cripple Creek, Colo., opened for business less than 100 days after ground-breaking. The project used a 2,500-amp, three-phase power quality service. The casino sports 395 slot machines, two bars, elegant chandeliers, security surveillance, a 50kW standby generator and data/communications systems.***

found that some of the company's own equipment was interfering with its computer system.

After the problem was solved, the Pepsi plant and Berwick participated in joint advertising to promote Berwick's clean power services.

and it is critical for them to stay on line. A shutdown in a clean room can result in a million-dollar loss and the disposal of a run of computer chips.

"Every minute is critical for responding to a problem," Peterson



houses are nearby [within several blocks]," Berwick said.

Many customers, familiar with Berwick's reputation, have continued to call on the company as they have grown. A fine example is the Shepard's/McGraw-Hill office building. Berwick first worked on the site in 1947, when it was constructed as Shepard's Citation (a publishing house that preceded McGraw-Hill) and recently outfitted the 197,000-square-foot McGraw-Hill office complex with a 3,000-amp, three-phase, 480-volt service with indirect lighting. The building also includes twelve 1,000-watt metal halide fixtures illuminating the top lantern, a fire alarm system, and a large computer room.

### **Berwick Earns Big Ratings In The Ring**

Looking to the future, Peterson sees growth opportunities in the low voltage and teledata fiber-optic wiring markets. Communications wiring, linking computers with wire and fiber optic cabling, and advances in technology, including the possibility of providing the Internet to homes through cable modems, are likely to provide opportunities for Berwick. So too are

point, to open a special department for these services, in the same way that the Power Quality department was opened to take advantage of changes in technology.

As Berwick grows, it also has to be aware of threats on the horizon and bolster certain areas that require additional attention as a company expands.

Peterson says, "One major threat is deregulation of utility companies. Some are starting their own contracting businesses. That's tough to com-

Peterson says, "We are trying to partner with the local utility company to guard against the threat."

Berwick has relied on outside marketing firms to prepare its promotional materials and advertising. But Peterson says it will soon bring its marketing efforts in-house as the company has to concentrate on new business, even while its current business is strong. In addition to its marketing efforts, the company's reputation and experience with local contractors, architects, and engineers are

responsible for much of the company's new and repeat business, says Peterson.

Berwick is also active in many local and national trade associations. However, both Peterson and Berwick point to community involvement as a key to the company's reputation in Colorado Springs. The company, for example, sponsors a monthly television public service announcement highlighting a police, fire, or other public service official who has performed above and beyond the call of duty.



***During a holiday weekend, Berwick performed a maintenance upgrade to the El Paso County Judicial Building. Here, Clay Gafford uses a Dranetz 808 to test the power conditions.***



***Fast, efficient service is a tradition at Berwick Electric. Service vans are fully inventoried and stocked with proper equipment for 24-hour availability.***

"smart" computer-controlled homes and commercial buildings.

Peterson says Berwick would like to enter these areas as the primary contractor and would like, at some

pete against. Most are financially set and can use their own resources to service customer and electrical needs.... It's not

that we don't want to compete against them, but we want to compete against them on a level playing field." Though utility deregulation has not been a problem locally,

Douglas Berwick points out that community involvement has been a long tradition at Berwick Electric. "My father organized a drug education program in the '70s. It was the state's first drug awareness program," he points out. Then he adds, "We like to say, our greatest accomplishment to date is the reputation we have built."

Flax, president of FlaxSun Power Co., writes on electrical contracting subjects.