Appendix 2

Promotional material on NiMH batteries from MOLTECH, partly based on data from the cordless power tool producer MAKITA.
**Nickel-Metal Hydride** - the same technology that made laptop computers and cellular phones smaller, lighter weight and longer lasting - is now the preferred power source for high drain devices like professional power tools.

In 1997, Energizer Power Systems announced the first major technology breakthrough in the past 20 years for high drain rechargeable batteries. Makita Corporation was the first to take advantage of the advanced Nickel-Metal Hydride (NiMH) technology and introduced the world's first professional line of cordless drills powered by Energizer's new NiMH batteries.

Today, NiMH batteries offer the longest runtime available for a wide variety of cordless power tools and other power-hungry devices. That's because NiMH batteries provide higher capacities than Nickel-Cadmium (NiCd) - the traditional power source for high drain applications. NiCd batteries are reaching their maximum capabilities and NiMH is proving to be the new standard for professional power. In fact, during its first year of production, the new NiMH technology increased in capacity 10% over the original NiCD and 5% over a lead-acid lead cadmium or lead. NiMH also represents a more efficient and compact power solution.

For outstanding performance, versatility and consumer appeal, NiMH is the solution for high drain portable power.
**NiMH Versatility**

NiMH technology opens opportunities for more products to go cordless. The NiMH technology is available in a variety of battery sizes for a wide range of device applications, from battery packs using AAA sized cells for smaller, lighter cellular phones... AA-sized cells for cordless screwdrivers and other consumer household devices... to the rugged C- or D-sized cell, the foundation of professional power tool packs. With technology advancing at a rapid pace, additional NiMH batteries are also on the horizon, offering high drain power to even more cordless devices.

**Cellular Phones**

NiMH has ushered in a new era of cellular convenience. The switch from battery packs with NiCd AA cells to high capacity NiMH AAA cells has allowed cellular phones to become the size of pagers.

**Power Tools**

NiMH provides more work from the same size battery resulting in less down time for changing and charging batteries. NiMH also provides the opportunity to make tools lighter and smaller, improving maneuverability and handling.

Future device trends are focusing on making drill drivers (a combination of drill and screwdriver) smaller in size. Circular saws can shift from NiCd to NiMH battery power to provide longer runtime in a full size saw. Other tool designs, such as hammer drills, are taking advantage of the high peak power and capacity and are becoming higher voltage.

**Household Devices**

NiMH is the power source behind household devices such as battery powered vacuums. NiMH is also providing longer runtimes for a variety of cordless consumer devices from electric razors and clippers to cordless screwdrivers and vacuums.

**Lighting Products**

The new NiMH technology will equip firemen and policemen with lighter and smaller flashlights. It also offers longer lasting, high tech safety lights for bicycles.

Professional photographers can enjoy the benefits of NiMH in high-powered lighting equipment.

**Professional Video**

NiMH power lightens the load for television news crews and other professional videographers. With longer lasting cordless power, fewer battery packs are required on the scene.

**Hybrid Electric Vehicles**

The power source of the future, NiMH is making hybrid electric vehicles a viable transportation option for the 21st century. As these engines combine gasoline and battery power, NiMH will rule the road.
**NiMH Outlasts NiCd by 15%**

**NiMH Performance**

New advanced NiMH technology provides the highest capacity batteries ever for high drain power tool applications. The new technology also enables manufacturers to design lighter, smaller devices without sacrificing performance.

NiMH has the ability to turn heavy tools into lighter ones, make cordless tools run longer, and turn big bulky tools into smaller, easier to handle tools.

To the building professional, the bottom line is simple – the NiMH battery means more holes, more screws and fewer trips to the charger.

**NiMH At A Glance**

- The world’s highest capacity battery for professional, high drain devices.
- Higher energy density that provides 15% longer runtime than today’s NiCd.
- High peak power to handle the most demanding applications.
- Fast and continuous charging.
- Environmentally preferred with no added cadmium or lead.
- Potential for continued improvements, making possible quantum changes in battery powered devices.

*In side by side tests, NiMH outlasted NiCd by 15% (Data provided by Makita)*
NiMH Appeal

NiMH has strong consumer appeal and is making headlines in news and trade publications around the world.

1998 Editors' Choice Award
Tools of the Trade
Spring 1998

1997 Battery Product of the Year
EE Product News
December 1997

Product of the Month
Builder Magazine
December 1997

A consumer news blitz is currently underway to increase awareness of NiMH through newspaper, television and radio coverage.

Environmentally Preferred

With no added cadmium or lead, Nickel-Metal Hydride is an environmentally preferred source of rechargeable power.
Moltech solutions for portable high drain power
**Improve the performance of your high drain portable devices**

Today, more and more high drain products rely on portable power. They require rechargeable battery technology that is not only smaller and lighter, but more powerful and longer lasting. Moltech Power Systems is meeting these increasing demands with its superior high drain technologies. Using the latest in rechargeable battery technology, we will give your products a market advantage.

Moltech offers:

- A full line of rechargeable cell technologies
- Battery design, components and plastics expertise
- Electronics design and development
- Battery assembly operations in North America, Europe and Asia
- Applications engineering and worldwide technical support
- Advanced cell battery and device testing, including UL testing

Moltech’s global design centers empower your product from concept to production. Our experienced professionals are ready to work with you to create a power solution that will meet your product performance demands and business goals.

Moltech’s Nickel-Metal Hydride is the solution for today’s high drain portable power.
NiMH Versatility

In 1997 Moltech Power Systems and Makita Corporation introduced the world’s first Nickel-Metal Hydride (NiMH) powered professional cordless drill. Since that time, NiMH has revolutionized the world of power tools, and today, the technology continues to create opportunities for more and more products to go cordless. NiMH is available in a variety of battery sizes for a wide range of device applications from battery packs using AA sized cells for cordless screwdrivers and other consumer household devices... to the rugged Cs sized cell, the foundation of professional power tool packs...to the high energy D-sized cells found in electric bikes and professional video equipment. With technology advancing at such a rapid pace, additional NiMH batteries are being developed to offer high drain performance to even more demanding devices.

Power Tools
NiMH provides more work from the same sized battery resulting in less down time for changing and charging batteries. NiMH also provides the opportunity to make power tools lighter and smaller, improving maneuverability and handling.

Household Devices
NiMH is the power source behind several household devices such as battery powered vacuums. The technology also provides longer runtimes for a variety of cordless consumer devices like electric razors and clippers.

Professional Video
NiMH lightens the load for television crews and other professional videographers. With longer lasting cordless power, fewer battery packs are required on the scene.

Hybrid Electric Vehicles
NiMH is making hybrid electric vehicles a viable transportation option for the 21st century. As these engines combine gasoline and battery power, NiMH will rule the road.

Lighting Products
NiMH technology will equip firemen and policemen with longer lasting flashlights. Professional photographers enjoy the benefits of NiMH high-powered lighting equipment and emergency lights are more reliable with metal hydride’s superior performance.

Military Applications
NiMH technology offers many advantages over other traditional and non-traditional power sources targeted at military applications. Its high discharge rate, high power delivery, wide temperature performance range and rugged design make this technology an excellent option for these specialized applications.

Electric Bikes
NiMH technology provides stable, consistent performance in a smaller, lighter package for demanding electric bike applications when compared to the other leading battery options. NiMH offers an environmentally preferred solution to cadmium and lead batteries.
NiMH Performance

NiMH technology provides the highest capacity batteries for high drain applications. The rugged technology outperforms all others in low temperature performance, power and runtime.

- High energy density provides 30% longer runtime than today’s high capacity NiCd
- High peak power handles the most demanding applications
- Fast and continuous charging
- Environmentally preferred with no added cadmium or lead
- Continuous potential for growth and improvement

NiMH turns heavy devices into lighter ones, makes devices run longer and provides higher torque and higher power for peak performance.

NiMH Highlights

- In 1997, Moltech and Makita Corporation introduced NiMH for professional power tools, making the first major breakthrough in 20 years in high drain rechargeable batteries.
- After its introduction, NiMH technology experienced a 30% increase in energy and a 40% increase in power delivery and continues to grow.
- In October 1999 Moltech’s NiMH cells powered an electric car to speeds over 254 miles per hour breaking both the World and U.S. land speed records for an electric vehicle. Over 6,000 cells were combined to provide 200,000 watts of power.
- Breaking global boundaries, NiMH is the chosen power tool technology for NASA’s construction of the international space station.

In the future, device manufacturers and consumers will see an increase in capacity and power in NiMH technology. Moltech’s improvements combined with our continuous introduction of new cell sizes and innovative product solutions make NiMH the obvious choice for high drain, power-hungry devices.

Mpower your devices with metal hydride from Moltech.
Moltech Power Systems nickel-metal hydride (NiMH) technology has been "Breaking the Rules for Power Tools" since 1997. Now this leading battery technology is breaking land speed records for electric cars.

On October 22 and 23 at the Bonneville Salt Flats in Wendover, Utah, Dempsey’s World Record Associates (DWRA) utilized this revolutionary technology in its electric streamliner, "White Lightning." The NiMH powered vehicle shattered both the existing United States and World land speed records for an electric car and reached a top speed of 254 mph.

The 6,040 NiMH Cs cells in Moltech Power Systems’ battery produced 200,000 watts of power to achieve the record-breaking speeds. The battery delivered up to 800 amps at 250 volts during the run providing enough power to drive two 200 horsepower alternating current induction motors at 10,000 rpm.

"Superior performance of Nickel-Metal Hydride technology over other battery technologies in the most demanding applications..."

"The performance and power of the NiMH batteries provided by Moltech Power Systems were a critical component in our successful speed record attempts," said CEO and Founder of DWRA Ed Dempsey. "The batteries delivered the energy we needed to show the world that an electric car is capable of 254 mph."

"This success showcases the superior performance of nickel-metal hydride technology over other battery technologies in the most demanding applications," said Vice President of Marketing and Business Development Mark Rouldbaugh. "We are proud that our technology was a part of this exciting event, and we consider ourselves privileged to be a part of the world class Dempsey team."

Moltech Power Systems’ NiMH batteries are specifically designed to meet the demands of high drain, power hungry devices. In addition to high capacity, NiMH offers high peak power, high energy density and high rate discharge. These advantages are further complemented by NiMH’s excellent low-temperature performance and continuous charge capability. With no added cadmium or lead, NiMH is also an environmentally preferred battery technology. Moltech Power Systems and Makita launched the world’s first NiMH technology designed exclusively for professional power tools in 1997. Continuous improvements and product line expansions have made NiMH suitable for a variety of professional and consumer devices. It is rapidly becoming the standard for all high drain devices."