

Richardson Electronics Second Quarter Fiscal Year 2024 Investor Presentation

January 10, 2024

NASDAQ: RELL



Forward Looking Statement

This overview includes certain “forward-looking” statements as defined by the Securities and Exchange Commission. Statements regarding the Company’s business which are not historical facts represent “forward-looking” statements that involve risks and uncertainties. For a discussion of such risks and uncertainties, which could cause actual results to differ from those contained in the forward-looking statements, see Item 1A, “Risk Factors” in the Company’s Annual Report on Form 10-K. The Company assumes no responsibility to update the “forward-looking” statements in this overview as a result of new information, future events, or otherwise.



ENGINEERED SOLUTIONS



Richardson Electronics (NASDAQ: RELL) designs and manufactures nearly 55% of the products it sells for power, microwave, and imaging solutions to industries worldwide.

Technical expertise and “engineered solutions” based on our core engineering and manufacturing capabilities

Value added solutions through design-in support, system integration, prototype design and manufacturing, testing, logistics, and aftermarket technical service and repair

Global infrastructure and support to serve customers wherever they are located

VISION

To make our world a better, more sustainable place by providing innovative technology solutions.

MISSION

We provide solutions that improve our world through innovative engineering and manufacturing in collaboration with our employees, customers and technology partners.

VALUES

- We are a diverse family; we take care of our people.
- We focus on long term viability for our company, our community and our world.
- Every interaction is important and deserving of respect.
- We believe in hard work, reward, and the determination to succeed.





Key Facts & Figures



Strong balance sheet with robust cash and cash equivalents and no debt



Certified experts that are ISO 9001:2015 and ISO 13485:2016 certified



425+ employees with over half in sales, engineering and product management



More than 20,000 OEM and end-user customers throughout the world



Headquarters in LaFox, Illinois



RELL is global with 60+ locations worldwide with legal entities in 24 countries

Our Business Units



Power & Microwave Technology (PMT)

- YTD FY2024 Revenue: \$67.0M
- Power grid and microwave tubes (EDG)
- Power management for 5G (PMG; started in 2014)
- In-house manufacturing and partnering with leading technology suppliers
- Global engineering and design support
- Key supplier to semiconductor industry



Green Energy Solutions (GES)

- YTD FY2024 Revenue: \$7.0M
- Designs and manufactures key products for the fast-growing energy storage market and power management applications
- Leverages existing global infrastructure and expertise
- Products for numerous green energy applications such as wind, solar, hydrogen, EVs, and synthetic diamonds



Healthcare

- YTD FY2024 Revenue: \$5.5M
- CT and MRI replacement tubes
- Diagnostic imaging replacement parts
- CT service training and technical support
- P3 Service Contracts for managing maintenance and repair costs
- State of the art manufacturing facility



Canvys

- YTD FY2024 Revenue: \$17.2M
- Custom display solutions for healthcare, industrial, retail and transportation applications
- All-in-one computer display solutions
- Engineering design and support

A Legacy of Engineered Solutions

A Future of Innovation

Power Grid Tubes



CW Magnetrons



**Ignitrons &
Thyratrons**



**Microwave
Generators**



Pulse Magnetrons



Ultracapacitors



**CT Replacement
Tubes**



**Refurbished CT
Systems**



**Custom OEM
Displays**

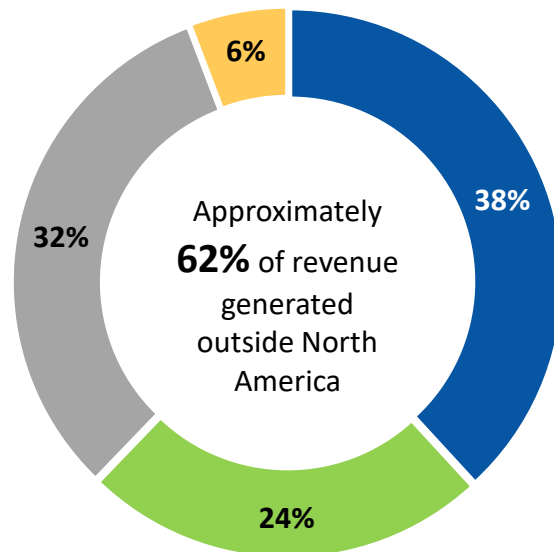


**All-In-One
Computer Solutions**



Local Service Supported Through Extensive Network of Over 60 Global Locations

FY2024 YTD Sales by Geography



■ North America ■ Asia/Pacific ■ Europe ■ Latin America

Sophisticated Global Infrastructure

- More than 60 sales offices & stocking locations
- Global field engineering support including over 75 RF, Microwave and CT engineers for leading technology suppliers
- Service and repair supported by local presence
- IT Infrastructure supports global visibility into real time inventory, quote and orders
- Information shared across organization to identify opportunities and facilitate design wins

Global Logistics and Supply Chain Capabilities

- Importer of record in 24 countries with international distribution hubs in North America, Asia, and Europe
- Shipment to any location worldwide in one to three business days
- Transactions in local language, and local currency
- Maximum flexibility including small quantity orders
- Export Control Classifications Number ("ECCN") items flagged for export control

Strategy Supported by Strong Core Business, New Products and New Markets

Management has created a strategic plan focused on driving growth and creating sustainable value for shareholders



Growth supported by strong core business, 75+ years of engineering capabilities, and global platform



Strategy focused on leveraging core engineering capabilities to expand product lines into large, fast growing global markets




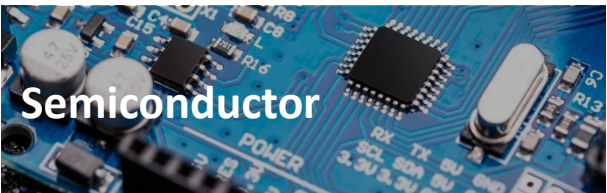
Global footprint supports customers and maintains strong strategic partnerships with leading manufacturers

New markets and applications support significant expansion to the Company's growth opportunities

Growth Opportunities and Focus:

Richardson’s Strategy Aligned with Compelling Market Dynamics



Market	Market Driver / Update	Richardson Opportunity
 Green Energy/Power Management	<ul style="list-style-type: none">• Power management section of systems using distributive technology• Growing markets that need new technology and products to support changing power management systems	<ul style="list-style-type: none">• Developing patented technology for niche applications in niche markets• Patented products for growth markets such as wind, solar, EV, generators, BMS modules, and ESS (energy storage systems)
 Power Grid Tubes	<ul style="list-style-type: none">• New applications are supporting growth in microwave tubes and magnetrons• Examples include emerging markets such as synthetic diamonds, hydrogen, and building materials	<ul style="list-style-type: none">• RELL is one of the few remaining tube manufacturers and engineering companies• For example, RELL’s 6KW magnetrons are being used for producing synthetic diamonds; replacement cycle every two years
 Semiconductor	<ul style="list-style-type: none">• Semiconductor capex cycle expected to remain strong over the long term• LAM Research, a RELL semiconductor customer, expects demand to return to growth in calendar 2024	<ul style="list-style-type: none">• Products support the global semiconductor wafer fab equipment market• RELL well positioned for high mix/low volume production and engineering design and support
 Healthcare	<ul style="list-style-type: none">• Very few replacement options for CT tubes• OEMs charge high prices for tubes and parts if hospital is not covered by expensive OEM service contract	<ul style="list-style-type: none">• Helping customers improve efficiency and deliver better clinical outcomes while lowering the cost of healthcare delivery• \$10 billion estimated global opportunity for aftermarket for diagnostic imaging parts and service

GES Product Roadmap Supports Large, Fast-Growing, and Global Opportunities



High double-digit year-over-year
revenue growth target

Targeted 30-40% average GES gross
margin



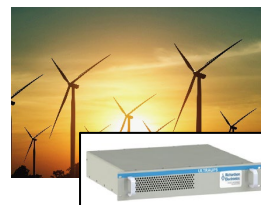
**Pitch Energy
Modules
for Wind Turbines**



**Power Systems
For Industrial,
Materials and
Chemical
Markets**



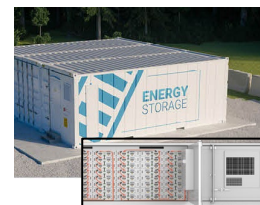
**Power Modules
For EV-Electric
and Diesel
Locomotives**



**Power Control
Systems
for Wind Turbines**



**Superstructures for
EV-Electric
Locomotives**



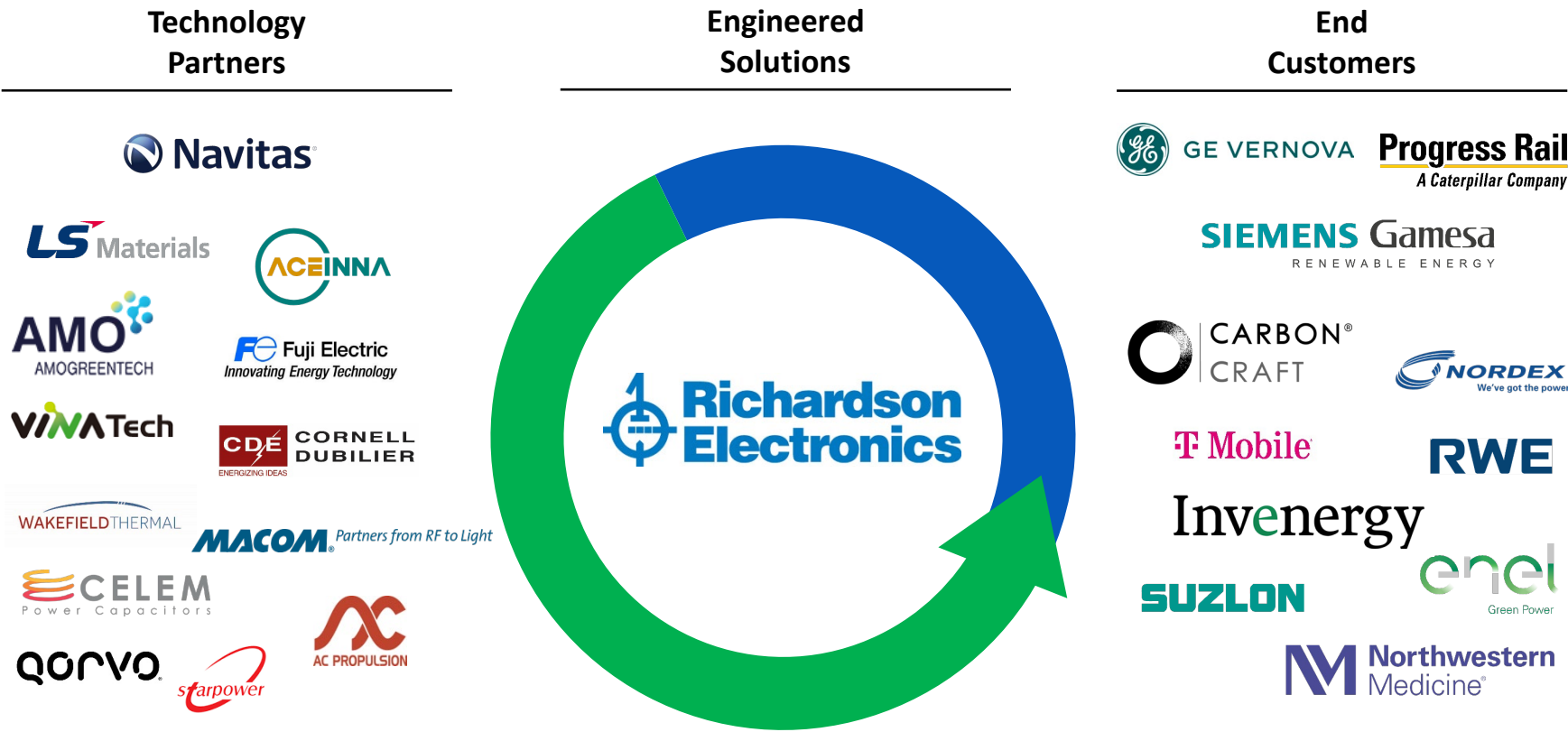
**Utility Scale
Energy Storage
Solutions**

Applications In Production

Applications In Development

**GES's strategy is to provide specialized technical expertise and engineered solutions
using our core design engineering and manufacturing capabilities on a global basis**

Unique Relationships with Technology Partners Deepens Customers Relationships



Strong relationships with global technology partners expands Richardson Electronics' sales and deepens customer relationships from components to Engineered Solutions

ULTRA3000® Case Study: New Product and Market Development



Customer Problem:

Wind turbine manufacturers and operators needed an environmentally friendly solution to extend the life of auxiliary power supplies for their Pitch Energy Modules

Richardson Electronics' Solutions:

Developed the first ultracapacitor-based plug-and-play replacement for batteries within wind turbine pitch systems



FY2021

PRODUCT DEVELOPED

- Leveraged experience in ultracapacitor technologies
- Worked with technology partners
- Created specifically for replacement market within wind turbine generators (WTG)
- Patented product with 30+ protected embodiments

FY2022

PRODUCT LAUNCHED

- Product from conception to > \$10 million in shipments and backorders in < 14 months
- Initial launch just for replacement product within existing GE WTG
- Over 40K modules shipped since product inception

FY2023+

PRODUCT LINE AND MARKET EXPANSION

- Expanded market opportunity to serve multiple WTG manufacturers and operators
- Developed new ancillary products including the: UltraUPS3000, ULTRAPEM™ Multi-Brand Pitch Energy Module, and new Diagnostic and Voltage Reduction Tools
- IGBT/Silicon Carbide power modules

Progress Rail Case Study: Building Larger Customer Relationships

1

Relationship with Progress Rail begins, and Richardson Electronics starts supplying IGBT power module design to Progress Rail in Brazil

2

Richardson Electronics began working on a design development for battery management systems with Progress Rail Brazil

3

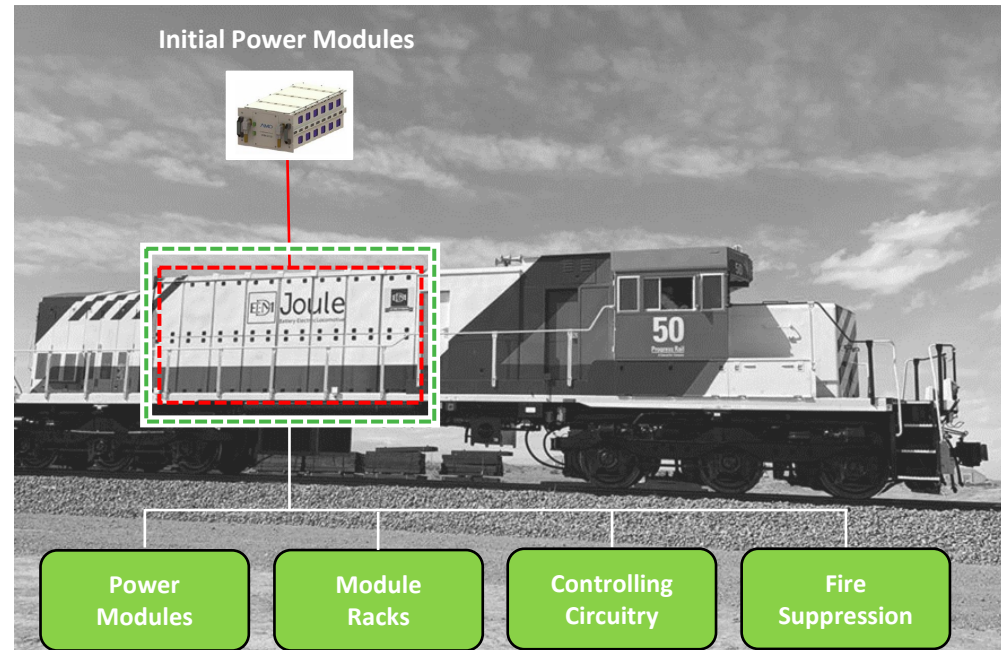
Richardson Electronics works with Progress Rail in the U.S. to offer Engineered Solutions beyond initial scope

4

Progress Rail selects Richardson Electronics to design and manufacture superstructures for Progress Rail's Electric Locomotives in North America

5

Product line expansion including battery start modules for trains and other applications



**Relationship Expanded to Support Entire Superstructure
Content \$1.0 million - \$4.5 million per Train**

GES YTD FY2024 Update

GES Highlights

- Project based sales and the timing of orders impacted YTD FY2024 year-over-year comparisons
- The Company has not lost any opportunities or market share
- Improved sales expected in Q3 and Q4 of FY2024 driven by:
 - Growing opportunities with new customers and products for the wind turbine industry
 - New EV applications, power management, and energy storage – including starter modules for electric and diesel locomotives
 - Growing partnership with Progress Rail, a Caterpillar Company, for production of lithium iron phosphate batteries for use in electric locomotives

GES Sales (\$ in 000s)



Power & Microwave Technology (PMT) Opportunity



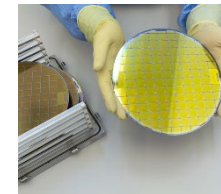
The leading provider of power and microwave components and related consumable parts

- **Electron Device Group (EDG)** which includes legacy tube business and semiconductor wafer fab; recurring revenue from sole-source consumable products
- **Power and Microwave Group (PMG)** which includes RF, wireless semiconductors, modules and power components
- Global provider of Engineered Solutions focusing on industrial tube manufacturing, microwave generators, power supplies and customer specific applications and assemblies
- Highly specialized in demand creation for new technologies
- We partner with manufacturers of leading edge and disruptive technologies. These technologies drive the latest innovations for our customers.

Bringing key technologies and solutions to the world for power, microwave niche applications



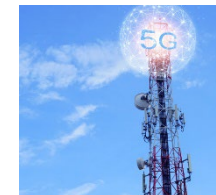
Power Management



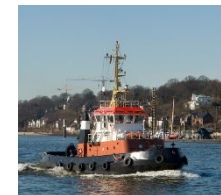
Semiconductor



Defense



RF and Wireless Communications



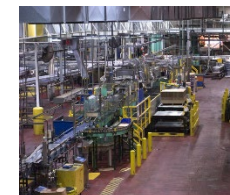
Marine



Avionics



Scientific & Medical



Industrial

PMT YTD FY2024 Update

PMT Highlights

- First half of FY2024 was challenged by weaker demand from semiconductor wafer fab customers, partially offset by strong double-digit bookings growth in the Company's RF and Wireless Business (PMG)
- Expect the semiconductor wafer fab market to recover in the back half of calendar year 2024
- Continuing to expand product lines and leverage the Company's global customer base of over 20,000 customers

PMT Sales (\$ in 000s)



Healthcare Growth Opportunity



Richardson Healthcare provides OEM quality replacement parts and training to support in-house clinical engineering and third-party equipment maintenance companies.



Richardson Healthcare's CT Tube Programs provide exact form and function replacements for popular OEM CT scanners helping reduce healthcare costs by offering an alternative to higher cost OEM parts.



The Company has invested over \$35 million in its Healthcare SBU, creating a best-in-class, value-added CT Tube and CT refurbishment platform.



Richardson Healthcare first launched the ALTA750D in May 2018, followed by the ALTA750G in 2022, and the Siemens repaired CT Tube Program beginning in 2023.

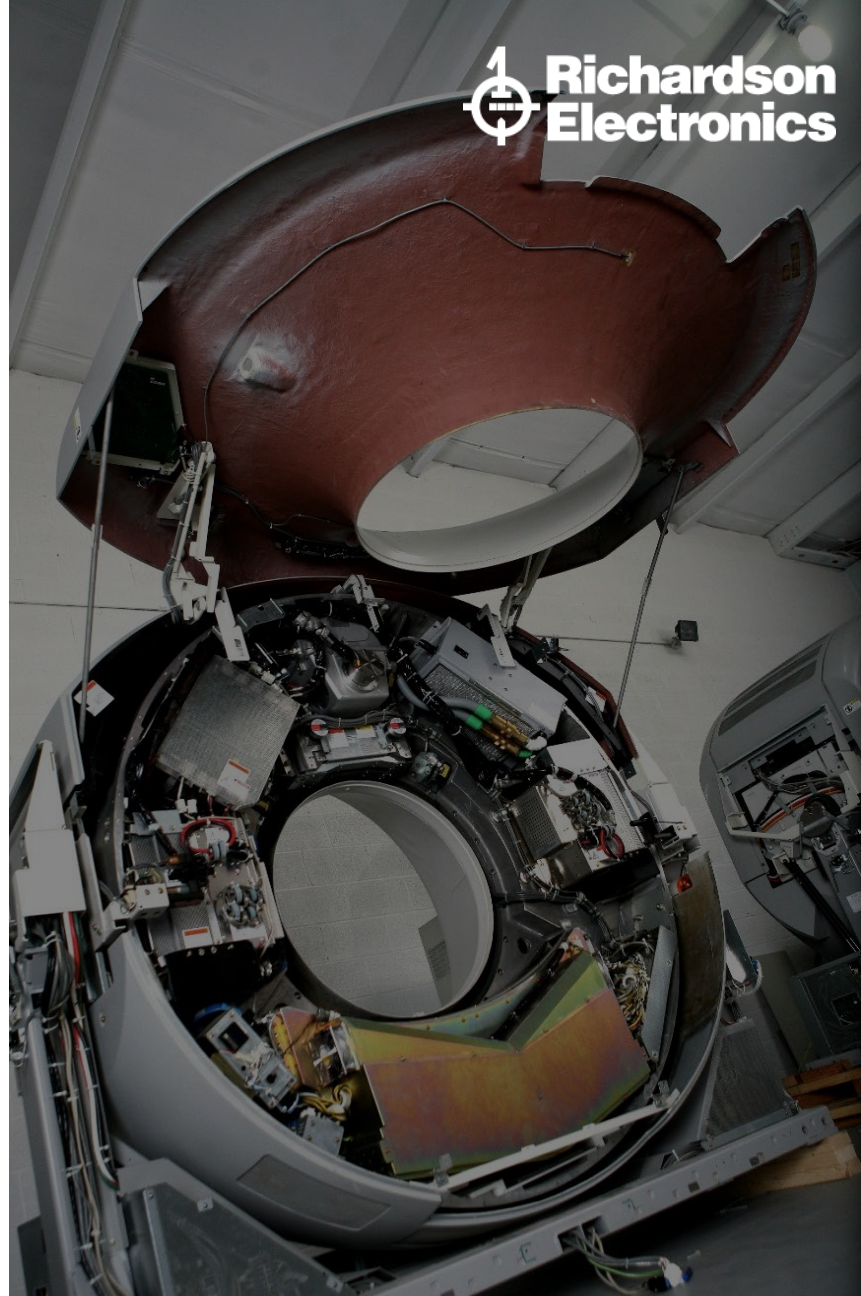
\$10 billion estimated global opportunity for aftermarket diagnostic imaging parts and service

Healthcare YTD FY2024 Update

Healthcare Highlights

- The repaired Straton Z tubes are in full production, performing well in the field, and Straton Z sales are just starting to ramp up with a steadier flow of production
- The first repaired MX series tubes are expected to be introduced to the market later in Q3 of FY2024, provided beta testing goes well
- Received GMP Certificate in Brazil, paving the way for RELL to export tubes to a customer in Brazil who will reload and sell RELL ALTA tubes in the country.
- Anticipated break even point in Q4 of FY2024

Healthcare Sales (\$ in 000s)



Canvys is a global value-added integrator and manufacturer that specializes in creating comprehensive visual technology solutions for OEMs.



Canvys is focused on providing small run, smart displays for specialized applications - often for demanding environments.



Canvys brings together a deep understanding of visual technologies, wide-ranging capabilities and a worldwide network to create complete solutions for OEM customers.



Expertise manufacturing display sizes from 5" to 58", with custom enclosures, touchscreen integration, and all-in-one computer solutions.

2,000+ global blue-chip customers rely on Canvys to supply leading display solutions for their unique needs

Canvys YTD FY2024 Update

Canvys Highlights

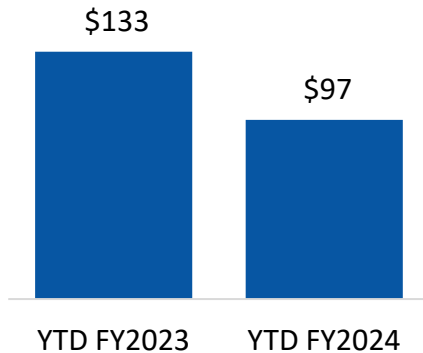
- Growing backlog as new orders received from both existing and first-time customers - although experiencing push out of orders given the economic environment
- Gross margin as a percentage of net sales improved to 33.5% in Q2 of FY2024, compared to 29.7% in Q2 of FY2023, as a result of favorable product mix and lower freight costs
- Well positioned for continued growth supported by the growing backlog and the number of projects currently in the engineering stage
- Strong relationships with blue-chip medical and industrial OEMs

Canvys Sales (\$ in 000s)

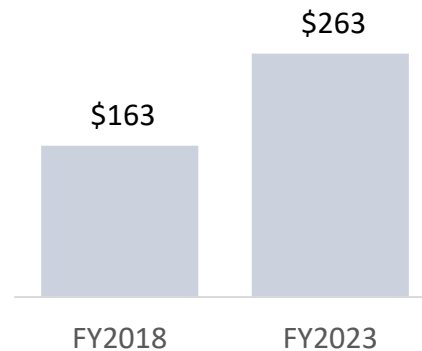


YTD FY2024 Financial Highlights

Net Sales (\$ in millions)

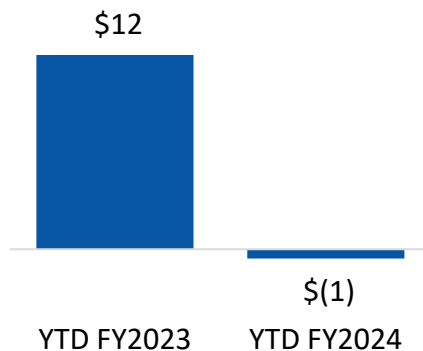


5-Year Growth CAGR Growth: 10.0%

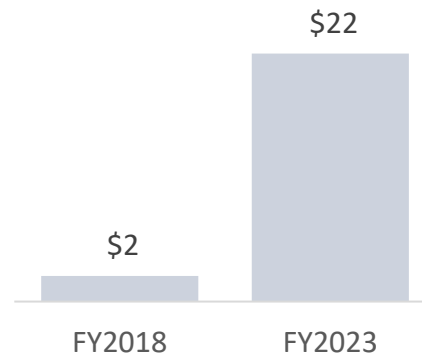


- FY2023 was one of the best years in RELL's 76-year history as sales grew across all strategic business units. Most notably, GES sales grew by over 110% as a result of expanded customer relationships, new engineered solutions and positive industry demand.
- As expected, YTD FY2024 results are being challenged primarily due to a fluid economic environment, the timing of project-based orders, and a decline in sales to semiconductor wafer fab customers.

Net Income from Continuing Operations (\$ in millions)



5-Year Growth CAGR Growth: 57.2%



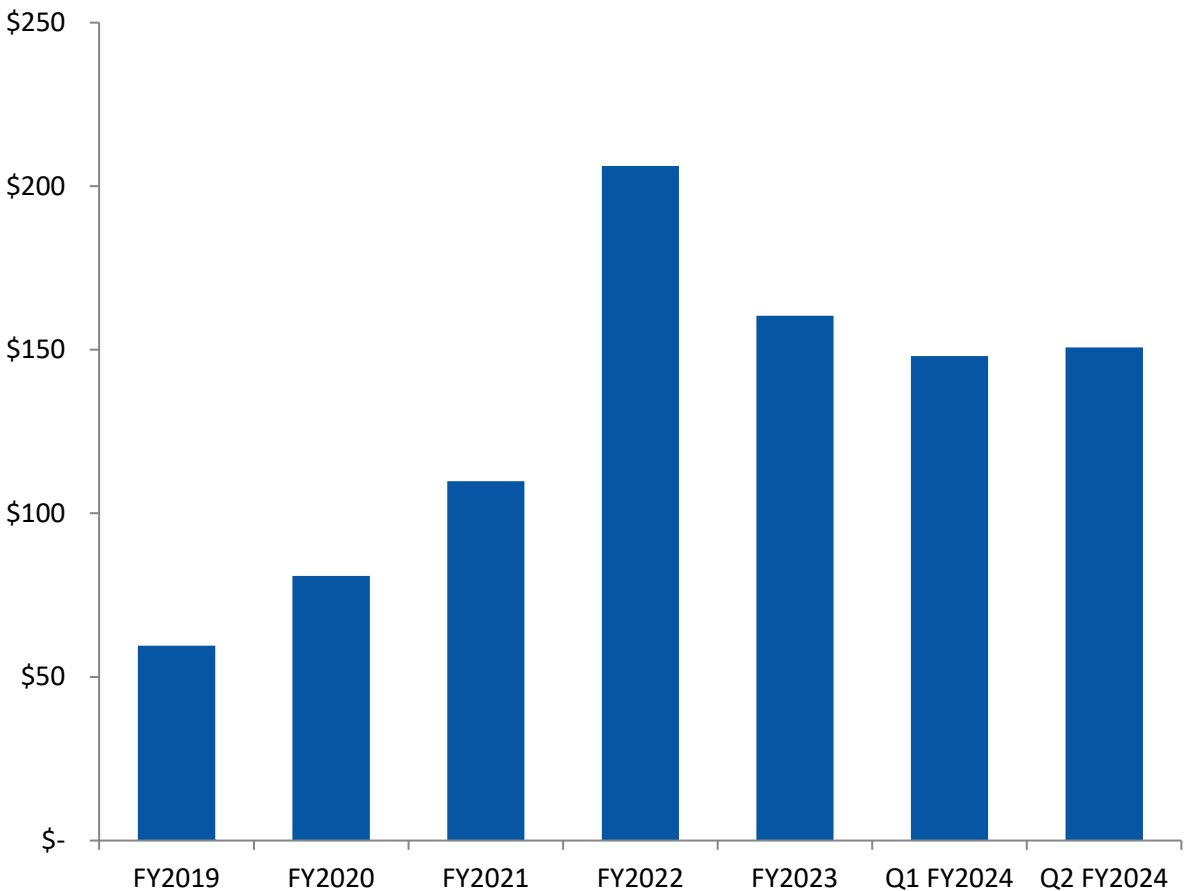
- Operating leverage on higher sales in FY2023 drove significant growth in earnings and demonstrates the power of Richardson's financial model.
- Reduced sales, combined with lower gross margin, impacted Q2 FY2024 net income.

Q2 FY2024 Balance Sheet and Cash Flow

- Strong balance sheet with no debt, and \$22.8 million in cash and cash equivalents
- No borrowings outstanding under \$30.0 million revolving line of credit
- Allocated \$0.8 million of capital in Q2 FY2024 to support the Company's regular cash dividend
- The Company continues to invest in working capital to support its growth initiatives across its four business units
- Inventory increased in Q2 FY2024, in line with purchases of Thales products which support the Company's profitable tube business, as well as long lead time ultracapacitors that are required to support green energy growth initiatives. The balance of inventory remained flat. In transit inventory was down indicating reducing inventory purchases in line with sales.
- Capital expenditures were \$1.5 million in Q2 FY2024 primarily related to investments in manufacturing, including facility expansion and included final costs for the renovation of office space

(\$s in 000s)	December 2, 2023	May 27, 2023
Cash and Cash Equivalents	\$22,769	\$24,981
Accounts Receivable	\$23,909	\$30,067
Inventories, net	\$116,951	\$110,402
Total Assets	\$196,488	\$198,048
Total Debt	\$0	\$0
Total Liabilities	\$37,847	\$38,728
Shareholders' Equity	\$158,641	\$159,320

Total Company Backlog
(\$ in millions)



- Total backlog at the end of Q2 FY2024 increased to \$150.7 million versus \$148.1 million at the end of Q1 FY2024, and \$59.5 million in FY2019 pre-pandemic.
- Backlog has leveled off from historic post-pandemic highs.
- We anticipate GES orders to increase in the second half of FY2024, followed by growth in semiconductor wafer fab equipment market in back half of CY2024
- Backlog increased 2% over the past 3 months, which management believes indicates stabilizing demand

- We are more optimistic than ever about the future of Richardson Electronics
- We continue to gain market share with new customers, exclusive supplier agreements, new products and our growing list of patents
- Much of GES' business is project-based and timing is not always easy to predict, however we expect to start receiving new orders in the second half of fiscal 2024
- There are certain macro and timing related variables that make it difficult to forecast beyond the next couple of quarters, but we expect our long-term growth strategies to produce sustainable annual growth
- Near-term strategies are focused on improving gross margin, controlling expenses, managing inventory, and conserving cash, while continuing to support long-term growth opportunities
- We remain optimistic about the back half of fiscal year 2024, based on customer demand for recently launched products, new technology partners, semiconductor wafer fab recovery and new engineered solutions
- Long-term strategy focused on diversifying sales to high-growth, higher-margin opportunities
 - Growing diversity of sales since the pandemic will help offset the impacts of challenging semiconductor wafer fab market
 - Significant opportunities associated with demand for our GES solutions to deliver sustainable annual sales growth
- It's not a matter of IF, but WHEN!



A Legacy of Engineered Solutions.
A Future of Innovation.

Appendix

Detailed Company Overview

Strategic Business Unit Overview: GES

- Newest strategic business unit formed because of our exceptional growth in demand for green energy applications (sales previously including in PMT segment)
- Green solutions is key to our long-term growth strategy
- Rapidly expanding line of energy storage products for various green energy applications, and we plan to announce several new product launches in the second half of FY2024
- Capitalizing on emerging markets trends through the combination of key technology partners and our engineered solutions capabilities, while leveraging our existing global infrastructure

Applications & Markets

- Wind
- Solar
- Power Management
- Synthetic diamond
- Electric Vehicles
- Hydrogen
- Battery Chargers for EV and Industrial

Select Customers



Progress Rail
A Caterpillar Company



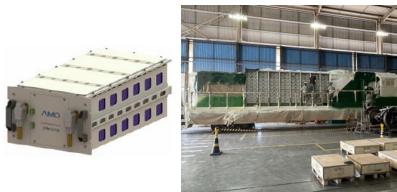
**CARBON[®]
CRAFT**

Product and Services Highlights

Ultracapacitor Pitch Energy Modules for Wind Turbines



Battery Modules and Superstructure for EV Locomotives



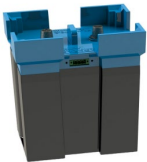
UltraUPS for Industrial and IT Applications



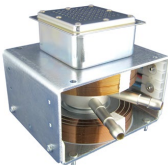
Hybrid Starter Modules for Locomotives



UltraGen 3000 for Remote Monitoring Capabilities



YJ1600 for Synthetic Diamond Industry



Strategic Business Unit Overview: PMT

- The leading distributor of power grid and microwave tubes and related consumable parts (EDG Group)
- Power and Microwave Group (PMG) brings key semiconductor active and passive technologies for RF, wireless, and microwave niche applications
- Partnering with manufacturers of leading edge and disruptive technologies to drive the latest innovations for customers
- Organic growth focused on product line expansion, leveraging 20,000+ global customer relationships, and manufacturing growing resources and capabilities
- Additional growth opportunities supported by partnerships and potential acquisitions

Applications

- SATCOM
- CO2 laser cutting
- Diagnostic imaging
- Dielectric/induction heating
- High energy transfer
- High voltage switching
- Plasma
- Power conversion
- Radar
- Microwave

Markets

- 5G
- Aviation
- Broadcast
- Communications
- Industrial
- Marine
- Medical
- Military
- Semiconductor

Product and Services Highlights

EDG Products



RF & Microwave Products



Power Management Products



Strategic Business Unit Overview: Healthcare

- Richardson Healthcare helps lower the cost of healthcare delivery with high value parts, upgrades and training solutions for hospitals and third-party service providers
- Healthcare manufactures, repairs, refurbishes and distributes high value replacement parts and equipment for the healthcare market
- Customers include hospitals, medical centers, asset management companies, independent service organizations and multi-vendor service providers

Supported Brands

- Canon (Toshiba)
- Siemens
- Hologic
- Richardson Healthcare
- GE
- Philips

Select Customers



Product and Services Highlights

CT Tubes



Parts



Refurbished CT Systems



Training and Service



Strategic Business Unit Overview: Canvys

- Canvys develops custom display and All-In-One computer solutions for Original Equipment Manufacturers (OEMs). We evaluate each customer's unique needs and craft the right solution
- Key capabilities supported by local collaborative approach with customers, compliance with medical device regulation, and global logistics capabilities
- ISO certification provides products that comply with the most demanding quality standards throughout the entire delivery process
- Manufacturing fully customized displays that pair revolutionary technologies with solutions for individual customer needs

Applications

- Air Traffic Control
- Broadcast
- Dental Care Units
- Endoscopy Systems
- Food Industry
- Manufacturing
- Medical Navigation
- Ophthalmology
- Robotics
- Transportation
- Vending Machines / Kiosks

Select Customers

We sell to 7 of the top 10 medical device companies worldwide.

Product Highlights

5" to 58" Custom Displays



All-in-One Computer Solutions

