



**RENEW
REVIEW
REPEAT**

2021 INDUSTRY RESEARCH: COVID-19 Implications & Opportunities for the Canadian Electrical Industry

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KERRWIL
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EXECUTIVE SUMMARY

Business leaders everywhere are planning critical next steps as they prepare to emerge from the aftermath of the pandemic. This crisis has required leaders to renew strategies, review outcomes and repeat this cycle to emerge stronger on ‘the other side’ of the pandemic.

With each challenge must come resolve. Despite the strain the pandemic has placed on businesses, it has also been a powerful catalyst for change. Leaders are doing more to protect the resiliency of supply chains, prioritizing employee health and wellbeing, instituting flexible work policies, examining new market opportunities, improving service levels, reviewing employee retention and attraction strategies, and accelerating digital business practices. This pandemic has leaped digital transformation forward by five years¹ and has also fundamentally shifted the way companies will run their business over the next five years² - resulting in many leaders questioning: *what comes next?*

This question was the impetus behind this year’s industry research and has spurred a growing interest in understanding these market trends: how have customers’ purchasing behaviours evolved? What are the long-term impacts on supply chains? Where will the market spend be? How can we support evolving requirements for home, office and industrial interior space? What type of work environment will the future hold, and what new HR policies will emerge to attract and retain talent?

To capture the full scope and scale of these questions, EFC partnered with Kerrwil Publications to conduct primary research involving interviews and surveys with industry leaders, HR professionals, electrical contractors, systems integrators and OEMs. EFC also sponsored a research project led by the Continental Automated Building Association (CABA) which reviews the pandemic’s impact on the intelligent buildings sector. Other secondary sources were also reviewed to examine macro factors as they correlate to our market.

¹ Grover, Michelle. “COVID-19 has sped up digital transformation by 5.3 years”. *IoT Now*, July 23, 2020: <https://www.iot-now.com/2020/07/23/104031-covid-19-has-spiced-up-digital-transformation-by-5-3-years-says-study/>

² Bar Am, Jordan; Furstenthal, Laura; Jorge, Felicitas & Roth, Erik. “Innovation in a crisis: why it is more critical than ever.” *McKinsey & Company*, June 2020: <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/innovation-in-a-crisis-why-it-is-more-critical-than-ever>

KEY RESEARCH TAKEAWAYS:



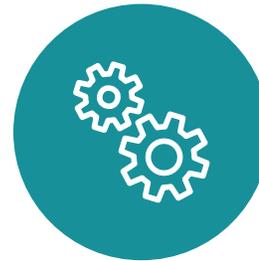
CUSTOMERS

- Supply chain issues have caused market share shifts across the industry as contractors adjust sources of supply and respond to specification changes.
- Contractors embrace digital sources of information for new products with less than 30% relying on sales reps for the same content.
- Online purchasing continues to rise – acceleration of e-Commerce platforms full speed ahead.
- System Integrators more loyal to brands, channel partners and sales representatives.



MARKETS

- Market growth in 2021 has been largely driven by price increases and forward-buying – not construction projects.
- Mega projects in non-residential sectors are expected to lead construction on a path towards recovery in 2022.
- New protocols established for employee safety, creating new product and technology opportunities for our sector:
 - Office spaces have been reconfigured to accommodate the management of viral loads and new spatial requirements.
 - We can expect to see the increased adoption of automation as a risk mitigation and capacity building strategy to build North American supply chain resiliency.
- Increased demand for larger residential spaces to accommodate home offices and recreational activities.



SUPPLY CHAIN

- Rebalancing supply chain resiliency versus costs is top-of-mind in our channel and across most other industries.
- New focus on supply chain resiliency will impact Canadian manufacturing, supply chain partnerships and product specifications.



TALENT

- Talent pipeline concerns are high, spurring creative attraction and retention strategies.
- Flex work is here to stay; nearly 80% of members will continue to have a work-from-home policy in effect.
- Demand for 'high-tech' talent is strong in response to evolving digitization practices and customer purchasing preferences.

For a full overview of these and other research takeaways, EFC has created and curated the following resources, shown on the next page, to provide further insights to help your organization develop strategic direction.

RESEARCH RESOURCES

1.

View a summary of the research findings on subsequent pages in this report.

2.

Watch this video for research highlights (presented at EFC's Conference, Sept. 2021).

3.

Explore the survey feedback obtained from customers and industry HR professionals.

4.

Review the references used in this study for further insights.

The 'net effect' of these emerging trends is profound and will continue to shift and reshape our markets, supply chains, customer experiences and talent requirements. EFC members will need to make investments and strategic planning decisions and this research is provided to support members' transition to the 'next normal' so they can emerge from the pandemic stronger and more relevant than ever before.

If you have any questions about this research, contact Swati Vora-Patel at spatel@electrofed.com

Explore EFC's vast range of other research publications that share insights on market trend and opportunities: www.electrofed.com/market-resources/industry-research





CUSTOMER EXPERIENCES

The results below represent data from surveys deployed by EFC and Kerrwil in July and August 2021 that targeted electrical and automation customers. For full survey results, see the Appendix.

SUPPLY CHAIN ISSUES HAVE CAUSED THE BIGGEST MARKET SHARE SHIFT IN OUR INDUSTRY – BUT THERE MAY STILL BE TIME TO SAVE THIS SHARE!

Due to supply shortages, most contractors said they do break spec and source alternative products* from new and/or existing suppliers.

* Alternative products which meet technical specifications.



OVER 70%

of contractors said they will likely continue sourcing products from alternative suppliers once supply issues have resolved.

CONTRACTORS' RELIANCE ON SALES REPS FOR PRODUCT INFORMATION IS DIMINISHING

Less than

30%

of contractors said they rely on sales reps for product information; most prefer to source information online from distributors' sites, manufacturers' sites and Google.

Over

50%

of contractors prefer to receive email communications from distributors to learn about new products/services.

Over

60%

of system integrators said they prefer to source product information from sales reps, likely due to technical expertise requirements.

ONLINE PURCHASING CONTINUES TO RISE; ACCELERATION OF E-COMMERCE PLATFORMS IS FULL SPEED AHEAD

Online sales in 2021 is said to be approaching

\$800M

in Canada.³



40%

of contractors said they purchase products from distributors' e-Commerce sites, and **over two-thirds expect to purchase at least 20% of their products from distributors' sites in the next 12-18 months.**

23%

of OEMs expect to make **over 80% of their purchases online from distributors' site in the next 12-18 months.**



MARKET OUTLOOK

The pandemic has shifted market opportunities and introduced new baselines in construction as well as in product and service requirements to support employees' work environments.

CONSTRUCTION BASELINES

EFC MEMBER MARKET GROWTH IN 2021 IS LARGELY DRIVEN BY PRICE INCREASES AND FORWARD-BUYING STRATEGIES, NOT CONSTRUCTION PROJECTS

EFC distributor sales are up by **23%** (YOY: first half of 2020 versus first half of 2021) while 2021 construction starts are at 1.7%, **suggesting product price increases** have largely contributed to market growth.

Some of the growth can be attributed to Residential construction (housing starts soared more than 50% above their long-term average (200,000 units) during the first half of 2021⁴). However, the Residential segment only accounts for 11% of sales in the Canadian electrical distribution market⁵.

THE PENDULUM SWUNG FAR-LEFT FOR THE COMMERCIAL SECTOR, PRE-PANDEMIC LEVELS NOT EXPECTED UNTIL 2025

Office building construction declined by **half in 2020**; lower demand from hi-tech space, vacancy rates for commercial space on the rise, sub-leasing of residential units in commercial buildings⁶.



FULL RECOVERY OF CONSTRUCTION EXPECTED IN 2022, LARGELY DRIVEN BY MEGA PROJECTS IN NON-RESIDENTIAL SECTORS⁷

Commercial

Increased data centre development due to the surge of data requirements from remote work, online financial trading, entertainment streaming, 5G technology and Artificial Intelligence.

Institutional

Hospital construction is on the rise (64% growth) largely due to the aging population of Canadians.

Industrial

Some onshoring to Canada to occur due to investments in production capacity and the growing automation of industrial processes. Our research shows that 43% of system integrators expect manufacturing facilities in Canada will increase production capabilities to support demand surges.

Other Industrial opportunities:

- Liquefied natural gas (LNG) projects projected to rise. According to the International Energy Agency, natural gas demand will return to pre-Covid levels, fuelling the start of nearly 20 LNG projects that have been proposed in Canada⁸.
- Distribution centre expansions to fuel construction growth due to population density and '15-minute cities'⁹.

⁴ Carrick, Alex. "Who Knew a Pandemic Would Lead to a Housing Boom?" *ConstructConnect*, April 2021: <https://canada.constructconnect.com/canadata/forecaster/economic/2021/04/who-knew-a-pandemic-would-lead-to-a-housing-boom>

⁵ *Pathfinder Benchmarking Report*, September 2021

⁶ "Construction Starts Forecast, Summer 2021". *ConstructConnect*. April 2021: <https://www.constructconnect.com/hubfs/Starts%20and%20PIP%20Forecast%20Reports/2021%20Q2%20CC%20Construction%20Starts%20Forecast%20Report.pdf?bcs-agent-scanner=682966d0-4bc7-eb41-a169-479b77fa5e3a>

⁷ *ibid*

⁸ "The Global LNG Trade and Canada's Missed Opportunities." *Canadian Energy Centre*, February 2021: <https://www.canadianenergycentre.ca/mia-130-billion-the-global-lng-trade-and-canadas-missed-opportunities>

⁹ Bozokovic, Alex; Castaldo, Joe & Webb, Danielle. "The 15-minute city aims to build more liveable[sic] neighbourhoods." *Globe and Mail*, November 23, 2020: <https://www.theglobeandmail.com/canada/article-when-it-comes-to-liveable-neighbourhoods-theres-a-wide-divide-in/>



MARKET OUTLOOK (CONT'D)

PRODUCT & SERVICE BASELINES

NEW PROTOCOLS ESTABLISHED:

- Air purification systems (HVAC, GUV)
- Surface disinfection (GUV, sanitization)
- Configuration (touch-free sensors, distancing/spacing)

These protocols have set new baselines for commercial, industrial and residential spaces.

New services have also evolved to help support the adaptability and resiliency of commercial, and in some cases, industrial spaces, providing manufacturers and distributors with new business model opportunities¹⁰:

- Lighting-as-a-service
- Software-as-a-service
- Energy efficiency-as-a-service
- Digital transformation-as-a-service
- Healthy buildings benchmarking-as-a-service

COMMERCIAL SPACES:

Office spaces have been redefined as employers and property managers address three critical viral loads: airborne, surface-borne and behavioural (employees' new health and safety expectations). These measures have heightened the essential need for intelligent building technologies to support spatial intelligence, AI-based control systems as well as health and wellness with touch-free operations and UV-C disinfection.

Workspace and meeting rooms:

IAQ-based ventilation requirements, spatial intelligence platforms and AI-based access control systems are critical here.

Restrooms and break rooms:

Antimicrobial paints in washroom walls, touch-free bathroom fixtures, continuous self-cleaning nanotechnology-based surfaces, pathogen scanners, UV-C disinfection and self-cleaning robots could be considered in these spaces.



Lobby and Entrance:

Thermal imaging cameras, AI-based face and mask detection, and self-service touch-free kiosks are crucial here.

Elevator and common spaces:

IAQ-based ventilation requirements, touch-free elevators, and gesture-based control options could be considered in these spaces.

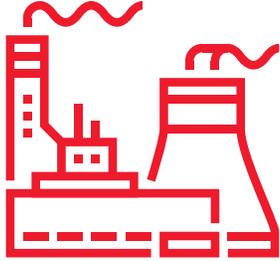
Source: CABA
Intelligent Buildings and
COVID-19 2021 Report

¹⁰ "Intelligent Buildings and Covid-19." Continental Automated Building Association (CABA), February 2021: <https://www.caba.org/product/intelligent-buildings-covid19/> [full report available for purchase]



MARKET OUTLOOK (CONT'D)

PRODUCT & SERVICE BASELINES

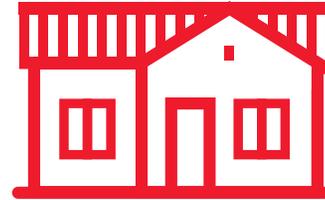


INDUSTRIAL SPACES:

Reconfiguration of plant and common spaces to accommodate health and safety, upgrade of ventilation systems, increase adoption of automation, add capabilities to take on domestic demand.

43% of system integrators surveyed said the pandemic has most impacted the re-configuration of plant floors to support workers' health and safety requirements;

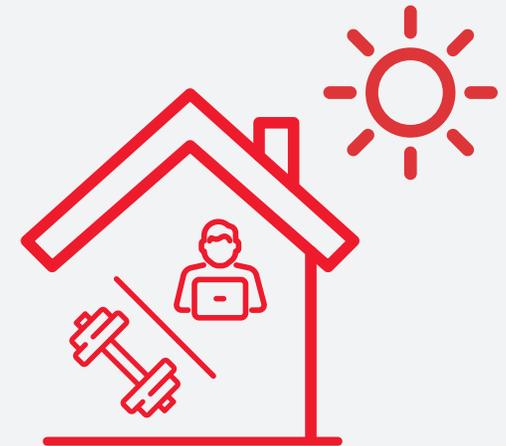
27% said manufacturing will undergo an increased adoption of robotics for production resiliency. Furthermore, a survey by McKinsey found that **93%** of manufacturing and supply chain professionals plan to focus on the resilience of their supply chain, and **90%** plan to invest in talent for digitization¹¹.



RESIDENTIAL SPACES:

Homes play a greater role in our daily lives and will require ongoing adaptation to accommodate work-from-home areas and more at-home activities.

This will involve adaptable layouts for home offices, multi-use spaces for exercise and wellness, multi-media, transitions from indoors to outdoors, touchless voice-activated electronics and appliances, lighting, smart home technologies (IoT), air purification systems^{12,13}.



¹¹ Chenneveau, Didier, Mancini, Matteo & Shinghal, Sahil. "A Resilient Return for Asia's Manufacturing and Supply Chains," *McKinsey & Company*. June 1, 2020. <https://www.mckinsey.com/business-functions/operations/our-insights/a-resilient-return-for-asias-manufacturing-and-supply-chains>
¹² Bahadursingh, Nathan. "6 Ways COVID-19 Will Change Home Design," *Architizer*: <https://architizer.com/blog/inspiration/industry/covid-19-home-design/>
¹³ Curkin, Charles. "Now What? How Home Design and Architecture Should Adapt to a Post-Covid World," *Elle Décor*, January 7, 2021: <https://www.elledecor.com/design-decorate/interior-designers/a34918038/architecture-home-design-after-covid-pandemic/>



SUPPLY CHAIN RESILIENCY

A 'resilient supply chain' is defined by its capacity for resistance and recovery; having the capability to resist and/or avoid the impact of a supply chain disruption – and the ability to quickly recover from a disruption.¹⁴

GLOBAL SUPPLY CHAINS IMPACTED BY A WAVE OF CHALLENGES



Unforeseen occurrences and natural disasters: COVID-19, Suez canal blockage, Port of Montreal closure, wildfires, hurricanes, pipeline cyber attacks.



Surge in demand affecting raw material availability, manufacturing capacity, distribution, lead times.



Transportation disruptions causing escalated shipping and freight costs.



COVID-19 cases, plant closures and government subsidies resulting in labour issues.

REBALANCING SUPPLY CHAIN RESILIENCY VS. COSTS IS TOP-OF-MIND IN OUR CHANNEL AND ACROSS MOST OTHER INDUSTRIES

FOR MANUFACTURERS:

- Onshoring/near-shoring to bring manufacturing closer to market
- Automating and digitizing production to heighten productivity and mitigate future HR risks
- Harmonizing product regulations to reduce sku variations, thereby removing supply complexity
- Decentralized manufacturing to mitigate risk
- Diversifying the portfolio of vendors and specifications to improve resiliency in design

FOR DISTRIBUTORS:

- Evaluation of partner strategies with view on supply diversification
- Forward-buy growth strategy and inventory management: industry leaders said their inventory levels have increased between 5-20% during the pandemic. EFC's market share data (Q2 2021) suggests **warehouse sales are nearly 3x higher than direct shipments** (28% vs 11%), signaling that market growth may not be driven by actual demand, but by forward-buy growth.



TALENT & EMPLOYEE REQUIREMENTS

The results below represent data from an EFC survey conducted in July 2021 with members who have HR and leadership responsibilities. For full survey results, see the Appendix.

FLEX WORK IS HERE TO STAY

Close to

80%

of EFC members will have a **work-from-home (WFH) policy going forward.**



Members have experienced positive WFH outcomes during the pandemic:

- Employee productivity & performance remains high.
- Employee engagement and involvement in organizational goals are aligned.

EMPLOYMENT IS BACK IN GROWTH MODE WITH STRONG DEMAND FOR 'HIGH-TECH' TALENT

Over half of members are planning to hire full-time and contingent positions in the next 12-18 months, primarily in Marketing, Technical/ Application Support and Inside Sales to support customers' evolving digital communications and technical support needs.

INDUSTRY SUPPORTS MENTAL HEALTH & WELLNESS WITH ENHANCED PROGRAMS & BENEFITS

Over half of members have added, or plan to add, mental health and wellness programs to support employees.

Explore some of the creative ways Canadian best-in-class companies are supporting employee mental wellbeing.¹⁵



TALENT PIPELINE CONCERNS ARE HIGH, SPURRING CREATIVE ATTRACTION AND RETENTION STRATEGIES

Over

60%

of members are concerned they do not have a robust talent pipeline in place.

As 'The Great Resignation'¹⁶ draws near, creative new attraction and retention strategies will be essential:



Work-from-home options



Remote work opportunities*



Flexible hours/weeks,



Health and wellness programs



Competitive salaries



Enriched learning and development programs



First-home down payments

*The pandemic has changed the world of work. For the first time ever, the number of **fully remote, six-figure job opportunities** have exceeded those jobs available in any North American city¹⁷.

15 <https://www.greatplacetowork.ca/en/best-workplaces/best-workplaces-mental-wellness-2021>

16 Golob, Leah [Canadian Press]. "Gen Z, millennials playing a significant part in the Great Resignation trend". *BNN Bloomberg*, July 13, 2021: <https://www.bnnbloomberg.ca/gen-z-millennials-playing-a-significant-part-in-the-great-resignation-trend-1.1628383>

17 Lindzon, Jared. "If you're looking for a six-figure salary, there are now more remote openings than in any individual city". *The Globe and Mail*, July 12, 2021: <https://www.theglobeandmail.com/business/careers/article-the-shift-to-remote-work-during-the-pandemic-has-permanently-changed>

INDUSTRY SURVEY RESULTS

1. EFC's HR Membership Survey, June 2021

[View Results](#)

2. Contractors' Survey, June/July 2021

[View Results](#)

3. System Integrators' Survey, June/July 2021

[View Results](#)

4. Industrial OEMs' Survey, June/July 2021

[View Results](#)

A special thanks to Kerrwil Publications for their support in deploying the customer surveys.



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