

EnWave Corporation (ENW)

March 21, 2020

EnWave Corporation offers industrial-scale dehydration technology for commercial applications in the food, cannabis, and pharmaceutical spaces. The Company's Radiant Energy Vacuum ("REV™") platforms are becoming the new global dehydration standard, as they are faster and cheaper than freeze drying, and have better end product quality than both air drying and spray drying.

Through the first quarter of 2020 EnWave's sales pipeline remained very strong for the worldwide expansion of REV technology. Six new royalty-bearing license agreements were signed in Q1 2020 through to today. International partnerships were achieved in South America, Australia, Asia and Europe.

The royalty revenue, excluding NutraDried, for Q1 2020 was \$402,000 compared to \$251,000 for Q1 2019, a healthy increase of \$151,000. This is a sign of growing success among EnWave's royalty licenses and expansion of REV products in the marketplace. This trend of growth will continue as the Company installs more REV machines and signs more royalty-bearing licenses on a global basis.

Taken as a whole, the first quarter results document a remarkably balanced platform to position EnWave for the next phase of growth. The Company achieved numerous important strategic objectives while consolidating the transition launched late last year. The recruitment of talented personnel is adding strength to the sales and marketing team. Investments to expand manufacturing capacity and bolster R&D priorities are also positioning EnWave to increase unit sales.



- ▣ The incredible growth and successful commercialization for REV technology has been assisted by the strategy to build alliances with leading companies in each sector. Once a respected, high-profile player in any sector has embraced REV technology and established a partnership, it often inspires other companies in that sector to follow suit.
- ▣ NutraDried Foods is performing extremely well with a plan in place to secure the next phase of growth.



THE COMPANY

EnWave Corporation is a Vancouver-based applied technology Company that works in partnership with food, cannabis, and pharmaceutical companies to develop commercial applications for its proprietary Radiant Energy Vacuum (REV) dehydration technology.

The key to the technology is the vacuum environment in which the drying process takes place. Thanks to the reduced atmospheric pressure, the temperature, at which the moisture is efficiently removed, can be lowered. This reduction of heat and oxidization minimizes the damage inflicted on the REV-dried products, preserving richer flavors, brighter colors and higher nutritional content versus other drying methods.

The University of British Columbia manufactured the first prototype REV machine in 1996 for dehydrating food and nutraceuticals. Since then, EnWave has developed three commercial-scale REV platforms: **nutraREV** for the food industry to dry fruits, vegetables, meats and other products quickly and at low-cost, while maintaining high levels of nutrition, taste, texture and color; **powderREV** for the dehydration of bulk food cultures, probiotics and fine biochemicals such as enzymes; and **quantaREV** for continuous, high-volume low-temperature drying of sensitive food products in liquid or solid form.

In addition, the Company has one developmental-stage REV platform: **freezeREV** to stabilize and dehydrate biopharmaceuticals such as vaccines.

EnWave's business model is to sell REV machinery and to sign royalty-bearing commercial licenses with leading food and pharmaceutical companies for the use of its revolutionary technology. Each license agreement restricts the partner's use of the technology to specific applications and geographic areas.

So far, EnWave has signed thirty-eight royalty-bearing licenses, with licensees using the REV technology for applications in the

dairy, seafood, spice & herb, fruit, cannabis, vegetable, and meat products verticals. Some of the Company's best-known customers include Pepsico (d.b.a. Bare Foods), Arla Foods, FrieslandCampina, Calbee, Bonduelle, Gay Lea Foods and Milne Fruits.

EnWave generates revenues from the following sources:

- ▣ REV machine sales and maintenance;
- ▣ Maintenance of the machines to ensure they are running properly and to replace and repair components subject to normal wear and tear from ongoing operations;
- ▣ Royalty streams from partners, which typically vary between 3% and 5% of sales (paid out quarterly), or a fee per kilogram of net production; and
- ▣ NutraDried, a 100% owned subsidiary, which sells healthy dried cheese snacks.

In the first quarter, ended December 31, 2019, sales continued to climb, as EnWave reported \$8,609,000 a solid 10% increase over the \$7,806,000 achieved in the first quarter of fiscal year 2019.

In Q1 of fiscal year 2020, EnWave reported a net loss after taxes of \$1,426,000 representing (0.01) per share. This compares with a net loss of just \$15,000 in the same quarter of 2019 and roughly breakeven on a per share basis.

Breaking down the numbers further, EnWave reported operating expenses of \$4,236,000 for the latest quarter, which was an increase of 83% above the \$2,315,000 from 2019. The significant increase in expenses accounts for the majority of the additional loss accrued during the most recent quarter.

Especially the restructuring of NutraDried Foods continued to impact the short term financial results. Recall that EnWave opted to reposition the wholly owned subsidiary to operate more independently from the parent Company. This decision led to significant non-recurring charges and expenses. Additional management personnel was recruited, and the sales and marketing team was strengthened as part of the longer term growth plan for the unit.

As part of the marketing initiative, Moon Cheese was relaunched as a premium branded snack food. Additional flavor choices were developed to build greater appeal. The product packaging was customized to better align with distribution and sales channels, and new package sizes have been created, including 10oz, 2oz and 1oz portions. All of these measures also lead to higher costs of sales on the short term as they are being implemented.

However, these necessary expenses are an investment in the future. The foundation for the Company to sustain the rapid growth plan is created through these prudent strategic spending initiatives.



Early 2018, Moon Cheese was offered in five flavor/size variations. Now it is available in fifteen different flavor/size formats to suit target customer preferences.

NutraDried LLP

NutraDried LLP develops, manufactures, markets and sells 100% all-natural cheese snacks under the Moon Cheese brand.

NutraDried produces Moon Cheese in cheddar, gouda, bacon cheddar, pepper jack, and garlic parmesan flavors at its manufacturing facility in Ferndale, Washington, and distributes it in over 25,000 retail locations across Canada and the United States. Notable retail points of distribution include Starbucks, Costco, Whole Foods, Target, Rite Aid, CVS, Safeway, Loblaws, and Save-On-Foods.

Moon Cheese sales have experienced a powerful growth the past couple of years. Royalties from NutraDried to EnWave in fiscal year 2018 were \$821,000, while they reached \$1,830,000 in fiscal year 2019.

Last year, NutraDried was restructured to operate as an independent subsidiary. This involved appointing a new CEO to run the business unit. A dedicated team of sales personnel was also recruited. New flavors for the product line were launched, and an expansion of the distribution network is underway to include wider coverage in grocery stores. More focused promotional and marketing programs are planned.

NutraDried currently uses two 100kW nutraREV machines and is slated to start-up a third 120kW nutraREV machine in mid-2020.

TECHNOLOGY

Before EnWave launched its Radiant Energy Vacuum technology, food processing companies were limited to opt for either 'freeze drying', which provides great product quality, but is cost prohibitive and is only used to process higher-value products; or 'spray and air-drying', which is cost effective but degrades the quality of the products (Also see table below).

Thanks to EnWave's REV dryers, companies, for the first time, can combine the effectiveness of freeze drying with comparable economics of spray and air drying.

EnWave's REV technology utilizes radiant energy (microwaves) in a vacuum environment to homogeneously dehydrate a wide variety of foodstuffs and biomaterials at temperatures ranging from approximately 37.5°C to below freezing.

Four REV platforms have been developed to address specific market opportunities. Three platforms – nutraREV, powderREV and quantaREV – are at a commercial stage, while the fourth one – freezeREV – is under development. Each platform is described in more details on the following page.

	EnWave's REV Technology	Freeze Drying	Air Drying
Better Product	Superior Color Superior Flavor High Nutritional Retention	High Nutritional Retention	Heat & Oxygen Damages Color, Flavor, Nutrients and Texture
Faster Process	Minutes or Hours (1,5 hours for Blueberries)	Hours or Days (24 - 36 hours for Blueberries)	Hours (6 hours for Blueberries)
Cheaper Cost	Up to 80% lower processing costs than freeze-drying (combination of lower capital, labor and energy costs)	High Capital Costs High Energy Costs	Low Capital Costs Competitive Energy Costs
Comparison between EnWave's REV technology, and freeze & air drying.			

Commercial Stage

nutraREV is designed for the dehydration of fruits, vegetables, herbs, dairy products, meats and seafood. It provides higher nutritional content, and improved appearance, flavor and texture over freeze drying, which is the industry standard for dehydrating many food applications. It is EnWave's most popular technology.

nutraREV machines are available at varying scales: 2kW for product development, 10kW for pilot-scale production and 100kW or higher for commercial production.

A 100kW unit is capable of producing as much as 150 kg (340 lbs) of dried product (below 5% residual moisture) per hour. A 100kW machine sells on average for USD\$1.5 million and generates between \$200,000 and \$400,000 in royalties per year at full utilization.

quantaREV is designed for high-volume, low-temperature dehydration of solids, liquids, granular or encapsulated products. It uses a continuous belt design in a controlled vacuum-microwave environment with an eventual target of dehydrating several tonnes of material per hour. This low temperature technology is designed to provide a higher-quality end product than what is currently achieved with spray drying or air drying.

powderREV is designed to dehydrate a wide variety of materials including enzymes, probiotics and food cultures, pharmaceuticals, non-regulated biologicals and certain dry food products.

The technology is ideally suited to replace the expensive and time-consuming process of tray freeze drying, which takes place in a high heat environment and damages sensitive organisms. Laboratory tests have shown that the potential benefits of powderREV over freeze drying include less capital cost due to faster dehydration times, smaller plant footprints, and lower energy and labor costs.

Development Stage

freezeREV is designed to provide high-speed dehydration for live and active organisms in vials with the potential for significantly lowering operating costs compared with freeze drying. freezeREV is intended for products that must have a minimum moisture content in order to maximize their shelf-life. It is currently available as a multi-vial prototype for partner research and development.

The idea is to evaluate EnWave's REV technology as a viable replacement for lyophilization in the pharmaceutical industry. More specifically, the developmental work and testing has focused on the potential of dehydrating several vaccinations (Also read Recent Events).

Unlike lyophilization, freezeREV employs a combination of microwave energy with a low-pressure environment to achieve rapid, highly controlled dehydration of live, or active, biological materials.

Tests conducted on a lab-scale freezeREV show that processing times are far less than with lyophilization, which dramatically reduces

costs. In addition, the footprint of a freezeREV machine is sizably smaller than a lyophilizer.

Expanding Patent Portfolio

EnWave holds numerous patents that protect both its REV technology and specific methods of use. Because the Company's technology continues to be developed, new innovations are made. As such, its intellectual property portfolio continually expands.

EnWave is driven to innovate and continuously commits resources to strengthen its intellectual property portfolio. Patents are truly the cornerstone for the Company's licensing-royalty business model, because each time a new patent is granted, the royalty stream timeline extends twenty years from the patent's filing date.

THE MARKET

EnWave targets both the drying equipment market and dried products market, where it partners with companies that dehydrate their products.

The total market size for freeze drying equipment is estimated to reach \$35 billion by 2020. Especially the food processing and pharmaceutical industries are expected to continue to drive demand for freeze drying equipment. While food processing is the largest segment with about 35% of the market, cannabis and biotechnology are expected to be the fastest growers the following years.

The worldwide market size for dried products is estimated at an astonishing \$400 billion. The largest segment, estimated at \$140 billion, is the food industry, which includes dried fruits, vegetables, meats, etc. The biopharmaceuticals segment comes in second with a \$67 billion market share, closely followed by probiotics, food cultures and enzymes, that generates \$61 billion annually. The dried beverage market, primarily made up of coffee and milk, is estimated at \$31 billion.

EnWave intends to develop the market for REV technology by selectively collaborating

with strategic partners focused on reducing processing costs and creating new or improved product opportunities.

VERSATILE APPLICATIONS FOR REV

While EnWave's dehydration technology has plenty of applications, it's clearly excelling in a number of distinct sectors.

Rapidly Expanding Dairy Space

By far the most successful REV dried cheese snack on the market today is Moon Cheese, as it's available throughout Starbucks in North America and at thousands of retail stores in Canada and the United States.

Attracted by this success, other food companies worldwide sensed an opportunity and closed commercial agreements with EnWave to produce similar snacks. Typically, EnWave receives a 5% royalty on cheese snack sales.

Some of the companies with which EnWave has signed a commercial agreement to produce a REV dried cheese product are:

- ▣ **NutraDried LLP** for the United States.
- ▣ **Arla Foods**, the world's largest manufacturer of organic dairy products. Pursuant to the License, Arla submitted a purchase order to obtain a small commercial-scale Radiant Energy Vacuum machine to initiate production. The License grants Arla the exclusive right to use REV technology to process dairy products in Denmark, Sweden, Finland and Norway.
- ▣ Operating as a cooperative of more than 13,000 individual dairy farms based in Netherlands, Belgium, and Germany, **FrieslandCampina** represents the collective interests of its membership of independent dairy farms, assisting with development, production and sale of dairy products throughout a broad-based European marketing area. In 2019, EnWave signed an agreement with FrieslandCampina that allows the latter to explore and evaluate the use of REV technology to create new dairy products.

- ❑ Early 2020, EnWave signed a commercial license with **Ballantyne Pty**, a leading Australian dairy company. The license grants Ballantyne the exclusive right to produce dairy products in Australia using the Company's REV technology (also see Recent Events).
- ❑ **Ashgrove Cheese** for Tasmania. Ashgrove purchased a 10kW commercial REV unit and launched a crunchy cheese snack under the brand name 'AmazeBalls' in January 2018. In September 2019, it purchased a second 10kW machines to fulfill increasing demand.
- ❑ **Gay Lea Foods** for Canada. It started up a 100kW nutraREV machine to expand the production of its 'Nothing But Cheese' snack product.
- ❑ **Lake Blue Spa** for Chile. Commercial production of its INTAKT cheese snacks has recently started. The dried cheese products are available in four flavors: Original Gouda, Spicy Gouda, Oregano Gouda, and Mediterranean Mix.
- ❑ **Dominant Slice** for Portugal and Spain. It recently launched a dried cheese product, coined B!t Cheese, and is now building out commercial opportunities for the product line (also see Fruit Category below).
- ❑ **Agricola Industrial La Lydia SA (Pitalia)** for Central America. It has received two 10kW nutraREV units and has ordered a 100kW REV machine (also see Fruits Category below).
- ❑ **Ereğli Agrosan** for Turkey. The license actually grants the company the exclusive right to process a variety of fruit, vegetable and cheese products. Ereğli's dried cheese product has entered the market and is being sold B2B in central Asian markets and into Europe.

EnWave Excels in Dried Fruits Market

A growing number of fruit processors have signed either an evaluation or commercial agreement with EnWave, indicating that this is another strong market segment for the Company's applications.

EnWave has a royalty-bearing commercial license with, among others, these fruit related companies:

- ❑ **Milne Fruit Products** entered the REV-dried fruits market a couple of years ago,

positioning MicroDried products - all-natural fruit pieces and powders - as pure, healthy alternatives to sugar-infused offerings. Milne Fruit is one of EnWave's largest customers, as it has three 120kW machines in operation.

- ❑ **Calbee**, a multinational snack foods company based in Japan, signed a commercial agreement with Enwave in 2019. The emerging partnership with Calbee is of interest because it represents the first significant beachhead for EnWave within the important Japanese market place.
- ❑ **Natural Nutrition Limited d.b.a. Nanuva Ingredients**, a Chilean fruit processor, that has positioned itself as a leading provider of 100% natural (with no additives) dried fruits with colours, shapes, flavors and nutrients very similar to those of fresh fruit. These healthy ingredients are used in the snack food, functional food, nutraceutical and cosmetics industry;
- ❑ Next to dried cheese (see above), **Agricola Industrial La Lydia (Pitalia)** is also very active in the dried fruits space. In fact, La Lydia is a global leader in producing and exporting golden pineapples under the brands YAZ and SWITI. La Lydia formed a new business entity coined Pitalia specifically for the production of REV dried products. Pitalia sells pineapple, apple, mango and banana snack products through its Pure Joy brand in the European and South, Central and North American markets.
- ❑ **Dominant Slice**, a Portuguese snack company, signed a non-exclusive commercial royalty-bearing license with EnWave, granting Dominant Slice the right to use its existing REV machinery to produce pineapple, mango, banana, coconut and papaya fruit pieces in Portugal.
- ❑ **Fresh Business Consulting (FBC)**, first purchased a smaller REV unit in April of 2019 to dehydrate highly nutritious fruit and vegetable products in Peru for export to international markets. Moreover, in the last week of 2019, Fresh Business bought a 100kW nutraREV processing line to substantially increase its royalty-bearing production capacity. Installation and commissioning of the 100kW nutraREV

processing line is targeted for the summer of 2020.

▣ **Pepsico (d.b.a. Bare Foods)** is the creator of delicious Snacks Gone Simple, including bare Apple Chips, Banana Chips, Coconut Chips, and new Beet Chips, Carrot Chips, and Sweet Potato Chips. Their snacks are sold in the United States, through grocery stores like Whole Foods Market, Sprouts, Safeway, and Publix as well as national retailers such as Target and Amazon. Bare has three 10kW REV machines in operation.

Growing in Important Vegetable Sector

A few years ago Bonduelle, the world's leading processed vegetable producer, determined that the use of REV processing enabled a superior method to preserve vegetables such that they retained flavor and texture even after freezing. After a phase of testing and product development, Bonduelle opted to lease a 120kW QuantaREV machine and initiated commercial production of the InFlavor line of industrial food products. InFlavor was subsequently recognized with awards at food industry conferences and events.

As part of its lease agreement for a 120kW REV unit, EnWave granted exclusivity to Bonduelle for use of the technology in the North American market. Bonduelle pays the Company a royalty on all frozen vegetable sales from production using the REV machine.

More recently, Bonduelle launched its Arctic Garden brand, a similar line of frozen vegetables for retail consumers. Initial sales projections appear to be encouraging. Bonduelle has reported significant growth for both InFlavor and Arctic Garden product sales. With a much larger potential market, Bonduelle envisions expanding its REV processing capacity with a large 400kW REV machine to increase production output.

For now, the decision to move ahead with the purchase of a larger REV machine has been put on hold however. This delay has led to the conversion of the royalty license held by Bonduelle into a non-exclusive agreement.

EnWave anticipates that a significant purchase order will be secured for a larger REV machine in the future nonetheless. The Bonduelle partnership remains an important corporate relationship.

The application for processing of frozen vegetables with REV technology continues to attract new enquiries from other interested companies. Discussions are currently underway with several companies that may step up to purchase REV machines and begin operating in North America.

Cannabis / Hemp Application

Late August 2017, EnWave filed a new patent application for the simultaneous pasteurization and drying of cannabis using REV technology. These patent-pending methods expanded the application of EnWave's REV technology to the booming medical and recreational cannabis sector.

Medicinal cannabis is often used by chronically ill or immunocompromised patients, causing several countries with medicinal cannabis programs to employ strict standards regulating microbial contamination of herbal cannabis products in order to reduce the potential for opportunistic lung infections. Ionizing radiation is currently the only method commonly employed to meet these medicinal cannabis microbial standards.

However, EnWave's patented technology pasteurizes and uniformly dries cannabis in its natural state, without any additives, in under one hour, dramatically shortening the time from harvest to marketable products and circumvents the need to transport medical cannabis to highly-specialized and expensive off-site decontamination facilities.

Another major advantage is that EnWave's continuous high-volume REV drying process also eliminates the need for large-scale in-house drying rooms and their associated potential for product loss due to mold growth during the traditional multi-day drying process.

Finally, a common method for the extraction of cannabinoids (essential oils) from the dried

plants uses pressurized CO2 as solvent. The challenge with this process however is that moisture levels in dried leaves often vary, which results in inconsistencies in the oils that are extracted. The goal with REV is to produce a much more homogenous raw material at a specific moisture level.



A single 120 kW quantaREV system can dry about 840 kg (about 1850 lbs) of wet flower in a single 8-hour day, producing about 190 kg (about 420 lbs) of dry flower per shift.

Since 2017, EnWave has targeted companies in jurisdictions where either medical or recreational use is legal.

EnWave currently has secured purchase orders for large-scale REV machines with Aurora, Tilray and The Green Organic Dutchman, all large cannabis companies. EnWave has also signed commercial license agreements and secured purchases of 10kW REV machines with Glasshouse Botanics (Canada), Cann Group (Australia), a Swiss Medicinal Hemp Company (Switzerland), Electric Farms (Hemp - USA), and Helius Therapeutics (New Zealand). With these valued partnerships verifying the capabilities of the Company's patented technology, EnWave expects continued growth in the number of royalty-bearing commercial licenses and equipment purchase contracts in the cannabis/hemp space.

Moreover, just this week EnWave's Board of Directors approved a plan to license the Company's REV technology into the U.S. cannabis market through a wholly-owned American subsidiary (Also read Recent Events).

A significant portion of EnWave's machine sales in 2019 were generated from sales to

the Canadian legalized cannabis sector. While the industry in Canada has grown significantly since the legalization of recreational cannabis on October 17, 2018, it is still in its early stages of maturation and is subject to many distribution and operational challenges.

Pharmaceutical Technology

Dehydration

A final pillar of EnWave's success is pharmaceutical applications.

In December 2011, EnWave signed a 10-year Research and Development agreement with **Merck**, one of the world's leading pharmaceutical, chemical and life science companies, in which Merck bears the costs associated with this process. Test results with a scaled-up freezeREV machine have been very encouraging.

The REV freeze drying technology for the pharmaceutical industry provides the capability for continuous processing such that individual dosage units of vaccines, enzymes, antibodies, proteins, probiotics and other small molecule therapeutics may be rapidly dried and packaged.

In September 2018, EnWave announced that Factory Acceptance Testing was completed after a thorough development phase at its own R&D facility in British Columbia, in collaboration with Merck. Testing work focused on achieving specific throughput and capacity objectives established by Merck to demonstrate the processing can deliver consistent performance with regards to production metrics such as moisture content, homogeneity, processing time, etc.

Following this test phase, Merck installed the 9kW REV machine at its facility in Pennsylvania, where it recently passed site acceptance testing. Site acceptance testing ensured that the equipment performed at the Merck manufacturing complex in line with the same protocol as the original parameters already achieved at EnWave's R&D test facility.

Merck has several new products under development that will become candidates to

utilize the REV machine for the potential launch of products in the future. The development regime would involve a timeline greater than 3 years to gain FDA approval, so the actual commercial payoff for this technology is some time ahead.

However, EnWave has once again demonstrated a new application for its REV technology. The potential rollout as part of the manufacturing process for established pharmaceutical companies like Merck represents another distinct industrial sector where the REV machines are contributing to efficient production of new products.

GROWTH DRIVERS

EnWave Potentially Solving Major Military Issue

In June 2017, EnWave entered into a contract with the US Army to jointly develop low weight, high quality, nutritious field rations.

This opportunity for EnWave is enormous, as potentially hundreds of thousands of men and women in active duty could be served REV-dried rations.

The military is focused on reducing the footprint (weight and volume) of what fighters have to carry in the field. It will not only increase chances of them packing more rations, it will also lessen their fatigue and improve agility and speed.

The Company's Radiant Energy Vacuum technology is uniquely suited for this purpose, because food items can be intermediately dried, and as such easily compressed. When products are dried with other drying techniques and then compressed, they typically pulverize into small pieces.

Internal groups of up to 200 people who sampled these newly developed products were very enthusiastic about the composition and flavor of the samples provided.

In fact, the NSRDEC was so satisfied with the progress being made that in July 2018 it ordered a 10kW REV machine for research and development purposes.

In May 2019, EnWave reported a second machine purchase order by the United States Army Combat Capabilities Development Command Soldier Center (CCDC)* to produce nutritious, durable rations for the military. The new 2kW REV dryer is sold for approximately \$100,000. It will be installed at another location than the 10kW machine, which was purchased last year to advance the development process.

** This entity was formerly known as the US Army Natick Soldier Research, Development and Engineering Center.*

The CCDC has been tasked with the development and procurement of advanced rations on behalf of the US Army. If indeed the collaboration with EnWave achieves a successful outcome, then the technology will be licensed to vendors to enable production of the rations. This will involve the sale of larger commercial REV machines and the potential for high volume production to commence.



For soldiers out in the field, it crucial to pack foods that are light weight, yet nutritious, durable, and healthy.

It should be highlighted that three-way dialogues are already ongoing between EnWave, the US Military, and approved vendors involved in supplying the military, to consider production of the new REV-dried rations once a final "go" decision has been made.

There is also the potential that other countries may be interested in licensing this technology on behalf of their military forces. EnWave has already met with representatives of the Australian department of Defence to discuss a similar development program. As was demonstrated by the breakthrough in the

Cannabis sector, the leadership of a significant player to embrace a new technology process may prompt a more rapid growth curve as other participants realize the benefits.

RECENT EVENTS

EnWave Plans to License REV Technology into the U.S. Cannabis Market

Earlier this week, EnWave's Board of Directors approved a plan to license the Company's REV technology into the U.S. cannabis market through a wholly-owned American subsidiary.

Over the past several months, the Company, in association with its U.S. counsel, Canadian counsel and the TSX Venture Exchange, has conducted extensive legal and regulatory due diligence. This included assessments of cross-border issues and compliance with U.S. federal laws, which concluded that EnWave may proceed with its expansion strategy into the U.S. market in compliance with applicable U.S. federal laws.

This is excellent news, as the U.S. cannabis market is huge. It has several major players, which now can start to benefit from the best drying solution in the industry.

EnWave Secures Milestone Joint Development Agreement with GEA Lyophil to Advance REV Processing in Pharmaceutical Sector

While some new agreements that EnWave Corporation has achieved in recent years were arranged remarkably quickly, others require years of work to bring to fruition. The process is worthwhile nonetheless, as each new agreement contributes longer term growth potential.

The evolution has been underway for several years to adapt EnWave's revolutionary Radiant Energy Vacuum (REV) technology to enable rapid freeze-drying applications for the pharmaceutical sector. Ideally, PharmaREV machines are suited for rapid dehydration of

live and active organisms. The process is faster and operates at lower cost than other available technologies. This promise for increased efficiency prompted Merck to install a 9kW REV machine at its facility in Pennsylvania in September 2018.



EnWave signed a joint development agreement with GEA Lyophil GmbH, a global manufacturer and marketer of freeze-dry units for the pharmaceutical and biotech industries.

Prior to that deal, EnWave had also signed a marketing initiative in July, with GEA Lyophil GmbH. Based in Germany, GEA is considered among the leaders in the design and manufacturing of freeze-drying units for biotech and pharmaceutical companies. The arrangement was therefore strategic to participate in the upstream side of the business, directly with a trusted supplier of the machinery.

In January 2020, EnWave reported the alliance has advanced to a Joint Development Agreement (JDA) with GEA, and the signing of a technology license deal. This collaboration is expected to accelerate the development of REV technology for pharmaceutical applications.

Meanwhile, the relationship with GEA provides additional benefits. The JDA enables EnWave to focus on other initiatives while R&D work advances for PharmaREV. Another appealing aspect to this relationship is that GEA contributes proprietary intellectual property. As a specialist in manufacturing processing equipment to the pharmaceutical sector, GEA is the ideal partner to advance this application for REV technology.

The deal effectively reduces commitment of time and money by EnWave in order to complete development for the PharmaREV

process. By securing the leadership advantage with a global supplier and manufacturer, EnWave is leveraging the expertise and technology of its partner to achieve the final development. And the arrangement is even more attractive given that GEA is bearing the development costs.

The cooperation between GEA and EnWave may enable Merck in the future to conduct clinical trials for several vaccines. The objective to secure commercial production of a pharmaceutical application for Merck creates opportunities for EnWave and could lead to a breakthrough in the lucrative pharmaceutical space.

It should also be noted that as a respected and trusted supplier in this sector, the implied validation of EnWave and REV technology is once again demonstrated. When the most advanced technology is required and strict quality control is demanded for an entire sector, it is a statement of confidence that the established manufacturer of this high-end equipment has chosen to partner with EnWave.

Commercial License Agreement with Pacifico Snacks in Colombia

In January, EnWave also signed a royalty-bearing commercial license with Pacifico Snacks S.A.S, which is a woman-owned and operated business that produces natural snacks for specialty food retailers. The company specializes in private-label production of high-quality, desirable, and innovative plantain and cassava chips that delight its consumers and impact the bottom line of major retailers.

Thanks to the agreement, Pacifico Snacks has the exclusive right to produce certain types of mango, pineapple and banana products within Colombia. This new offering will further enhance Pacifico's reputation as a leading private-label supplier to major North American grocers.

Pacifico Snacks immediately purchased a 10kW commercial Radiant Energy Vacuum machine to initiate commercial production in

Colombia. Moreover, Pacifico must pay a royalty to EnWave on all production and must order additional REV machines in order to maintain its exclusive rights. This License is the first signed by EnWave in Colombia and the 38th worldwide.



With extensive expertise in the private label production of fruit snack applications, this new premium product offering will further enhance Pacifico Snack's reputation as a leading private-label supplier to major North American grocers.

FINANCIALS

EnWave generates revenue from two business segments: EnWave Canada and NutraDried. EnWave Canada sells REV machinery to royalty partners, rents REV units to prospective royalty partners, and earns royalties from customers that sell REV dried products.

Note that royalties are payable to EnWave as a percentage of the value of products sold or based on the number of units produced by its royalty partners. NutraDried, on the other hand, sells Moon Cheese snacks into retail and wholesale distribution channels.

The Company reached sales for Q1 2020 of \$8.60 million compared to \$7.80 million for Q1 2019, an increase of \$803,000 or 10%. During Q1 2020 EnWave had the highest number of large-scale REV machines in fabrication at one point in time for the Company. Moon Cheese sales in the first quarter were downwardly affected due to excess inventory in the club channel that was previously sold in Q4 2019 for the Most Valuable Member program in Costco. However, improved distribution was achieved

in other channels and repeat sales were strong overall.

Amounts in \$000's	12/31/19	12/31/18
Total Sales	8,609	7,806
Cost of Goods Sold	5,413	4,769
Gross Profit	3,196	3,037
Expenses	4,777	2,736
Pre-Tax Income (Loss)	(1,581)	301
Income Tax Expense (Recovery)	(155)	316
Net Profit (Loss)	(1,426)	(15)
Diluted Shares Outs.	110,955	101,473
Diluted EPS	(0.01)	(0.00)

Selected income statement data for the quarters ended December 31, 2019 and December 31, 2018. Source: Company Filings

EnWave achieved a gross profit of \$3.19 million for Q1 2020 compared to \$3.03 million for Q1 2019, an increase of \$159,000. Gross margin held steady at 37% in Q1 2020 compared to 39% for Q1 2019. The sales mix shifted in the quarter with more revenue from machine sales. EnWave expects the gross margin on machine sales to improve in coming quarters due to the implementation of some price increases.

Consolidated net loss after taxes was \$1.42 million for Q1 2020 compared to a net loss of \$15,000 for Q1 2019, an increase of \$1.41 million.

Balance Sheet As Of December 31, 2019

On September 30, 2019, the Company had working capital of \$25.09 million, compared to \$13.30 million on December 31, 2018.

Also on September 30, 2019 the Company's cash and cash equivalents balance was \$16.53 million compared to \$9.27 million on December 31, 2018, an increase of \$7.25 million. The change in cash and cash equivalents is primarily due an investment by Aurora Cannabis with net proceeds of \$9.17 million. The remaining increase is due to deposits received from customers on machine purchases as well as cash received from the exercise of stock options and warrants. The Company had net cash outflows from

operating activities of \$2.79 million for the three months ended December 31, 2019.

Amounts in \$000's	12/31/19	12/31/18
Cash and Cash Eq.	16,537	9,279
Restricted Cash	250	250
Trade Receivable	4,568	4,367
Due From Customers Under Contract	1,299	521
Inventories	9,915	3,303
Total Current Assets	33,656	18,142
Plant and Equipment	4,493	4,822
Total Assets	40,139	23,781
Trade and Other Payables	4,464	2,570
Customer Deposits	2,934	1,914
Total Current Liabilities	8,563	4,842
Long Term Debt	215	339
Total Liabilities	10,075	5,348
Total Stockholder Equity	30,064	18,433

Selected balance sheet data on December 31, 2019 and December 31, 2018. Source: Company Filings

Inventory on September 30, 2019 includes completed machines and machine components of EnWave Canada of \$2.57 million. NutraDried's inventory was \$7.33 million on December 31, 2019 compared to \$1.53 million on December 31, 2018. The increase to NutraDried's inventory was due to reduced sales in the period while maintaining production levels to optimize plant efficiencies.

All in all, EnWave maintains a strong working capital surplus and a debt-free balance sheet, providing a robust foundation for future company growth including, REV machine fabrication, royalty generation and Moon Cheese production.

OUTLOOK

EnWave Corporation reported its first quarter financial results for the three months ended December 31, 2019. Certain data points are closely monitored and considered the benchmark of performance for any listed company. However, it is also wise to interpret the entire picture to determine if indeed a company is headed in the right direction.

As an emerging technology story that remains very early in the growth curve, EnWave must anticipate future spending requirements and respond quickly. This can distort the financial picture on a short-term basis. All data therefore should be taken in context along with the evolution of the Company.

The NutraDried subsidiary contributed lower revenues during the first quarter of 2020. The Company reported that Moon Cheese sales were down as previously sold inventory held at distribution channels was backlogged. This excess inventory is expected to be resolved and sales momentum restored, as the new marketing strategy gains traction.

Steady sales growth is the confirmation for the successful rollout strategy employed by EnWave. This in turn is supported through the forward-looking corporate investments reported each quarter. Sales growth continues and royalty revenues increase with every new partnership agreement. EnWave is on track to deliver another breakout year and the first quarter results provide indication of the positive trend.

The roster of royalty partners continues to expand across multiple sectors as more applications are developed for REV processing. The Cannabis sector remains one of the fastest growing channels. Inroads are also made within the hemp subsector and for drying flowers prior to processing CBD oil.

Food processing is another important growth sector for EnWave. During the quarter the Company established partnerships with a snack food manufacturer in Colombia, a specialty food ingredients processor based in Iceland, and a dairy producer based in Australia.

The international diversification, across multiple industries and sectors, establishes a more stable platform of royalty income. This in turn builds greater resilience to cyclical slowdowns that may occur periodically within specific regions or economic sectors.

Many of the core partnerships are subject to very strong growth potential. These companies have developed new products using REV technology, often that are early in

the rollout phase as well. The rapid growth for the Moon Cheese snack line through NutraDried is a template for the potential increase in royalties that may ultimately be achieved through the various agreements in place.

SHARE DATA & OWNERSHIP

As of February 20, 2020, EnWave had approximately 111.2 million common shares outstanding. In addition, the Company had approximately 7.77 million warrants outstanding with an average exercise price of \$1.39.

Finally, EnWave had about 9.62 million stock options outstanding with a weighted average exercise price of \$1.40. Each stock option entitles its holder to purchase one common share of the Company.

The principal owners of the Company's common stock are Manulife Asset Management (3.25%), DJE Kapital AG (1.45%), Horizons Marijuana Life Sciences ETF (0.99%), and Royce Global ValueTrust Fund (0.27%).

MANAGEMENT

▣ **MR. BRENT CHARLETON, CFA - PRESIDENT & CEO, DIRECTOR**

Mr. Charleton has extensive experience working in competitive team-based environments in the public and private sectors. He has managed the business development, marketing and investor relations mandates for EnWave Corporation since 2010 and was recently promoted to President and Chief Executive Officer. Brent, an ex-professional athlete, is a graduate of the Marketing Management program at the British Columbia Institute of Technology and has earned a Bachelor of Arts degree in Criminology and Communications from Simon Fraser University. Mr. Charleton has completed the Canadian Securities Course and is a holder of the right to use the Chartered Financial Analyst® designation.

▣ **MR. DANIEL HENRIQUES, CPA, CA - CFO**

Mr. Henriques is a Chartered Accountant and brings extensive experience in finance effectiveness and financial reporting to his role at EnWave. Prior to joining EnWave, Mr. Henriques was a manager in the Assurance group at PricewaterhouseCoopers LLP, and supported numerous mid-market companies, including companies listed on the Toronto

Stock Exchange, TSX Venture Exchange and the New York Stock Exchange, with financial reporting and compliance. While at PwC, Mr. Henriques provided clients in the manufacturing and technology sectors professional services in the areas of financial audits, financial reporting and tax.

ANNUAL INCOME STATEMENT FY 2017 – Q1 2020

All numbers in thousands

PERIOD ENDING	FY 2017	FY 2018	FY 2019	Q1 2020
Total Revenue	15,954	22,825	42,842	8,609
Cost of Revenue	11,654	13,915	29,236	5,413
Gross Profit	4,300	8,910	13,606	3,196
Expenses				
General & Administrative	2,072	2,439	4,329	1,758
Sales & Marketing	2,160	3,731	5,787	1,943
R&D	1,138	1,213	1,692	535
Amortization Intangible Assets	888	573	391	62
Stock-based Compensation	891	545	1,821	468
Total Operating Expenses	7,286	9,317	14,703	4,777
Net Income (Loss) Before Income Taxes	(2,986)	(407)	(1,097)	(1,581)
Income Tax Expense (recovery)	-	538	889	(155)
Net Income (Loss)	\$(2,986)	\$(945)	\$(1,986)	\$(1,426)

Annual Income Statement FY 2017 – Q1 2020. Source: Company Filings



E N W Λ V E

TSX Venture: ENW
OTC: NWVCF
Frankfurt: E4U

Company Headquarters

#1 – 1668 Derwent Way
Delta, BC V3M 6R9
Canada

Company Contact Information

Brent Charleton, CFA - President & CEO, Director
Phone: +1 778.378.9616
bcharleton@enwave.net

About Smallcaps Investment Research

We're proud that Smallcaps Investment Research is recognized as one of the most trusted online sources on U.S. and Canadian small cap stocks. We've earned that trust because we only highlight stable, ethical companies to our visitors and newsletter subscribers. We focus on fundamentally undervalued companies with a market cap below \$100 million, and we have a special interest in stocks with a high potential, innovative product or service. Read our [About](#) for more information.

This Company Report is prepared and distributed by Smallcaps Investment Research.

Contact: editor@smallcaps.us

DISCLOSURES

This publication has been prepared by Smallcaps Investment Research, which owns and operates the website <http://www.smallcaps.us>. Smallcaps Investment Research is not a registered financial advisor, nor is it a stockbroker or investment advisor.

This publication is provided for information purposes only and is not intended to be an offer, or the solicitation of an offer, to buy or sell the securities referred to herein.

Investors must make their own determination of the appropriateness of an investment in any securities referred to herein based on the merits and risks involved, their own investment strategy and their legal, fiscal and financial position. Past performance is no guarantee for future results. Smallcaps Investment Research nor any of its employees shall be responsible for any investment decision.

The information herein has been obtained from, and any opinions herein are based upon, sources believed reliable. However, its accuracy and completeness is not guaranteed. All opinions, forecasts and estimates herein reflect the judgment of Smallcaps Investment Research on the date of this publication.

This Company Report may contain certain "forward-looking statements" within the meaning of applicable securities laws, including without limitation, statements related to the Company's plans, strategies, objectives, expectations, intentions and adequacy of resources. Investors are cautioned that such forward-looking statements involve risks and uncertainties including without limitation the following: (i) the Company's plans, strategies, objectives, expectations and intentions are subject to change at any time at the discretion of the Company; (ii) the Company's plans and results of operations will be affected by the Company's ability to manage its growth, and (iii) other risks and uncertainties indicated from time to time in the Company's public filings.

Smallcaps Investment Research has been compensated by EnWave Corporation to develop and execute a communication plan to enhance the Company's exposure to the investor community.

Smallcaps Investment Research and/or its employees may hold positions in companies mentioned. However, it is prohibited for Smallcaps Investment Research and/or its employees to trade in financial instruments of companies one week prior to publication of the initial Company Report or a rating change until one week thereafter.

No part of this publication may be reproduced in any manner without the prior written consent of Smallcaps Investment Research. © 2003 - 2020 Smallcaps Investment Research.