

EnWave Corporation (ENW)

June 09, 2018

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.

The Company's most important achievement during the second quarter, which ended March 31 2018, was the acquisition of the 49% non-controlling interest in NutraDried LLP (NutraDried), bringing the Company's ownership to 100%. On the basis of annualized fiscal 2018 net income, the Company paid a purchase multiple of only 2.1x net income to acquire the 49% non-controlling interest. A very attractive deal indeed!

NutraDried, which manufactures and distributes Moon Cheese, generated sales of \$2.36 million in the second quarter, ended March 31, 2018 compared with \$1.40 million in the second quarter of 2017. An increase of almost 70%. These were the highest ever single quarter sales for Moon Cheese. The strong rise was partly due to several substantial orders from Costco's Midwest, Northwest and Southeast divisions for club format Moon Cheese. NutraDried furthermore reported \$716,000 in net income for fiscal year 2017, and \$1,086,000 for the first half of 2018.

We reiterate our buy recommendation for EnWave Corp. with a price target of \$3.46, which is 168% above today's stock price.



- The rapid progression of EnWave's relationship with Tilray is significant as the cannabis sector is still within the early phases of legalization in many parts of the world. Therefore, the growth implications are very attractive in this market vertical.

Tilray has chosen to partner with EnWave and utilize REV-processing because it contributes to a more efficient production scenario. The stature of Tilray as a respected participant in the international cannabis market increases the likelihood of attracting additional licensed partners to use REV technology.

EnWave's management remains very bullish on the entire cannabis sector and continues to work towards securing additional agreements in Canada and international markets.



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.

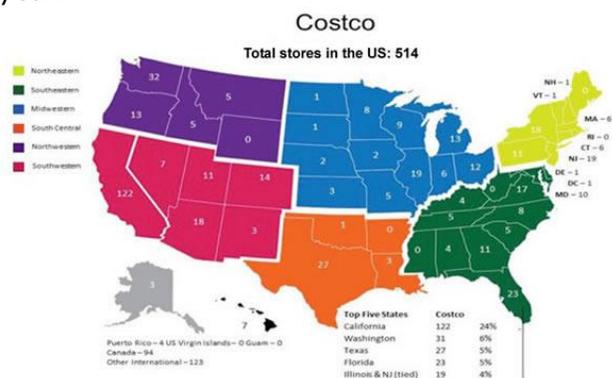
So far, EnWave has signed twenty royalty-bearing licenses, thereby opening up nine distinct market sectors for commercialization. Some of the Company's best-known

customers include Bonduelle, Gay Lea Foods, Ultima Foods (Agropur Dairy Co-operative) and Milne Fruits and Perdue Farms.

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 may be a gross payment of 3-5% of sales (paid out quarterly), or a fee per kilogram of net production; and
- ❑ NutraDried, which sells healthy dried cheese snacks.

The Company reported consolidated revenues of \$4.17 million for its second quarter of fiscal year 2018, ended March 31, 2018, compared with \$4.18 million in the same period last year.



Moon Cheese is being sold in Costco's Midwest (blue), Northwest (purple) and Southeast (green) divisions.

The Company's most important achievement during the quarter was the acquisition of the 49% non-controlling interest in NutraDried LLP, bringing the Company's ownership to 100%. On the basis of annualized fiscal 2018 net income, the Company paid a purchase multiple of only 2.1x net income to acquire the 49% non-controlling interest. A very attractive deal indeed!

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NutraDried furthermore reported \$716,000 in net income for fiscal year 2017, and \$1,086,000 for the first half of 2018.

The acquisition of the non-controlling interest in NutraDried also allows the Company to pursue additional commercial opportunities using the installed 100kW nutraREV dryer, as well as enhance the ability for EnWave to use NutraDried's processing capabilities as a showcase to prospective royalty partners.

Despite the strong Moon Cheese sales, EnWave reported a net loss of approximately \$519,000 for the second quarter of 2018. This compares to a net loss of \$779,000 in the second quarter of 2017. All in all, an improvement of about \$260,000 compared with last year.

Moreover, the Company continued to be cash flow positive with cash flow from operations of \$319,000 for the first two quarters of 2018, compared to a negative cash flow of \$46,000 for the first two quarters of 2017.

Business wise, strong progress continues to be made. EnWave has been growing its prospective royalty partner pipeline as it commercializes REV across the food, legalized cannabis and pharmaceutical sectors.

In the second quarter, EnWave signed a new royalty-bearing commercial license agreement with Nomad Nutrition, and continued to expand its royalty partnership and machine sales pipeline through joint produce development projects under Technology Evaluation and License Option Agreements ("TELOAs") with prospective partner companies in multiple verticals. Even during the past few days several more agreements were announced.

Currently, EnWave has 11 active TELOAs and one active R&D projects with prospective licensees evaluating the use of REV for

applications in the dairy, seafood, spice & herb, fruit products, vegetable products, and meat products verticals. Several of the active agreements are with major international processing companies.

The strategy under these arrangements is to co-develop product applications using the technology for specific partner opportunities and to ultimately convert them into commercial licenses. EnWave earns revenue under TELOAs from short-term REV machine rentals as well as fees for access to its R&D facilities and product development expertise. EnWave's food scientists and engineers work with the prospective license company during the TELOA phase of the sales cycle to formulate and optimize innovative products using REV, and develop a path towards commercialization.

NutraDried LLP

NutraDried LLP develops, manufactures, markets and sells 100% all-natural cheese snacks under the Moon Cheese brand. Up until a few weeks ago, EnWave USA Corporation, a 100% daughter of EnWave Corp, held a 51% stake in NutraDried. That changed when EnWave USA acquired the remaining 49% interest for US \$1,800,000 (CAD \$2,266,000), which was paid out of treasury.



Moon Cheese is now available in five different flavors. On the right-hand bottom the new Sriracha flavor.

Now that EnWave has full control over NutraDried, additional commercial opportunities using NutraDried’s installed 100kW nutraREV processing line will rapidly be pursued. In a few of months NutraDried will launch a couple of Moon Cheese extension products coined “Moon Cheese Mixems”. For example, different types of cheese will be dried and mixed with a dehydrated tomato. In addition a Moon Cheese salad topper will be launched as an alternative to croutons. These will be distributed through the existing Moon Cheese channels.

NutraDried produces Moon Cheese in cheddar, gouda, mozzarella, pepper jack, and sriracha flavors at its manufacturing facility in Ferndale, Washington, and distributes it in over 20,000 retail locations across Canada and the United States. During the past quarter NutraDried again added several new retailers for distribution of Moon Cheese in the United States and Canada. Notable retail points of distribution include Starbucks, Target, Rite Aid, CVS, Safeway, Loblaws, and Save-On-Foods.

Starting in December 2017, Moon Cheese also became available in Cheddar and Pepper Jack flavors in approximately 70 stores at Costco’s Midwest division (blue area on map). For the first time, NutraDried offered the 10 ounce packages – coined the club format. These retail for about \$10, while the regular 2 ounce packages sell for \$3.99.

Since then several repeat orders have been received from Costco. In fact, Moon Cheese is

currently available at Costco’s Midwest, Northwest and Southeast divisions.

EnWave expects NutraDried to continue contributing positive earnings, revenue growth and cash flow for the Company.

TECHNOLOGY

Before EnWave launched its Radiant Energy Vacuum technology, food processing companies were limited to opt for either ‘freeze drying’, which provides superior 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 below.

	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 \$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 was 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.

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. And finally, third party tests show no key differences between freezeREV and lyophilized products.

Expanding Patent Portfolio

EnWave holds numerous patents that protect both its REV technology and specific methods of use. The past two years, the Company received no less than 43 new patent approvals that protect its technology and processes.

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 at \$16 billion and is expected 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 at every 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 all cheese snack sales.

The companies below have all signed a commercial agreement with EnWave to produce a REV dried cheese product. It is also stated for which country or region the companies obtained an exclusive license.

- ❑ **NutraDried LLP** for the United States;
- ❑ **Umland LLC** for high kosher products in the United States. Production and distribution of the snacks has commenced and will soon significantly expand;
- ❑ **Gay Lea Foods** for Canada. It started up a 100kW nutraREV machine to expand the production of its 'Nothing But Cheese' snack product. After a somewhat slower start, sales are starting to pick up;
- ❑ **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 Fruit 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;
- ❑ **Kesito LLC** for Greece. A 10kW commercial REV machine was installed late 2016, which allowed Kesito to complete product development and enter the European market with a high-quality, shelf-stable dried cheese snack product under the Air Cheese brand name: and
- ❑ **Ashgrove Cheese** for Tasmania. Ashgrove submitted a purchase order for a

10kW commercial REV machine to initiate production and will be launching snack products under the brand name 'Amaze Balls' in January 2018. The product will soon go into 1,400 Independent Grocers of Australia (IGA) supermarkets in Australia. In June/July an even broader market launch is planned down under.

Next to the above agreements for REV dried cheese snacks, EnWave also signed its first commercial royalty-bearing license for yogurt products.

▣ **Ultima Foods (Agropur Dairy Co-operative)**, a major Canadian yogurt processor which produces more than 100 million kilos (220 million lbs) of fresh dairy products each year, announced in April 2018 a processing breakthrough to create an entirely new snack food based on yogurt.

After almost three years, Agropur has arrived at a satisfactory outcome with an innovative product that is ready for launch in the competitive snack foods market. An intensive test regime evaluated options to produce a healthy snack food derived from yogurt that retains the flavor and health benefits, and yet has a crunchy texture.

This is a ground-breaking product that has never before been available and there is nothing else like it on the market today. The iögo Protein Crunchy Bites will be available in stores this spring.

While Agropur is well-known and highly respected as a producer of dairy products including yogurt and healthy beverages based on yogurt, the decision to expand its product line to include a yogurt-based snack food was a priority. This line of yogurt protein snacks is complimentary to the main product range.

The challenge of developing a suitable processing option to transform yogurt into a snack product was made possible due to the unique advantages offered by EnWave's REV technology. Starting from a liquid yogurt blend, the dehydration process produces a flavorful light snack

that is solid, with a texture like puffed cereal. The snacks will be sold in small packages using pillow-pack vending.

The new yogurt snacks will be marketed under the iögo brand, which is already established in grocery and convenience store chains across Canada. Agropur has not yet disclosed specific outlets which will be the first to carry the new product line except that the initial launch will be limited to Alberta and Quebec.

Subject to maintaining the exclusivity of the license, Ultima is also required to order a larger, continuous REV machine before the end of 2018.



The brand new iögo Protein Crunchy Bites will soon be available in stores in Alberta and Quebec.

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. In fact, more than 50 consumer products on the market today already use its ingredients;

- ❑ **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. In 2018, Pitalia aims to start selling pineapple, apple, mango and banana snack products through its Pure Joy brand in the European and South, Central and North American markets;
- ❑ **Van Dyk Specialty Products Ltd.**, a major Canadian producer of wild blueberry products, that is best known for its highly successful blueberry juice, is focused on providing the market with high-quality REV dried blueberry products;
- ❑ **AvoLov LLC (formerly AvoChips LLC)**, a U.S. based processor that has developed an innovative new avocado snack product using REV technology. AvoChips submitted a purchase order to obtain a 10kW commercial-scale REV machine to initiate production. The license grants AvoChips the exclusive global rights to use the REV technology to process the snack product;
- ❑ **Howe Farming Group**, one of Australia's largest and most diverse farming enterprises. The license grants Howe Farming the exclusive right to use the Company's REV dehydration technology to produce dried banana products in Australia and the non-exclusive right to produce dried blueberry products in Australia; and
- ❑ **Bare Foods** is currently known for its line of dried snack chips made from slices of apples, coconuts, and bananas. This family of snack foods, marketed under the "Bare Snacks" brand name is baked and therefore represents a healthier alternative to many other fried snack food choices. Since March 2017, extensive test work was conducted at EnWave's facilities

in Vancouver. Early 2018, Bare decided to move ahead with the purchase of a 10kW REV machine.

- ❑ A couple of weeks ago, EnWave signed a non-exclusive commercial royalty-bearing license with **Dominant Slice**, granting the latter the right to use its existing REV machinery to produce pineapple, mango, banana, coconut and papaya fruit pieces in Portugal.



Next to REV-dried fruits, Nanuva Ingredients has also developed a line of dried fruit powders such as maqui and blueberries, which are used in the nutraceutical and food industries.

Growing in Important Vegetable Sector

In January 2016, **Bonduelle**, the world's leading processed vegetable producer launched a new category of frozen vegetables called InFlavor. The new exclusive InFlavor dehydration and preparation process uses EnWave's vacuum-microwave drying technology.

The REV technology truly separates InFlavor from all other frozen vegetables as the texture and taste of the vegetables is retained.

Bonduelle first launched InFlavor to its B2B customers in North America. In addition, it also has an eye on the European market, so this could potentially be a very exciting evolution. In fact, Bonduelle contracted EnWave to double the production capacity of its existing 120kW dryer. This process is ongoing, but should be finish shortly. Consequently, Bonduelle's commercial production, as well as its royalty payments to EnWave, are expected to go up in 2018.

In 2017, **Merom Farms**, an agricultural and food production company, announced that it is going to start selling wasabi-based products in Canada and the United States.

The dried, powdered and encapsulated wasabi is specifically designed for the natural health supplement market and will soon be available under the "Your Wasabi" brand name.

Your Wasabi holds the ONLY license issued by Health Canada to produce wasabi capsules in Canada.

Meat Snack Producers - Another Major Market for EnWave

In addition to dairy, fruits and vegetables, meat is another opportunity for success.

The intention of most of these meat companies is to develop crispy meat snacks. Similar snacks are already being produced, but the texture and taste of most meat chips is poor because they are either air dried or baked.

In the meat category, EnWave has signed royalty-bearing agreements with:

- ❑ **Perdue Farms**, a leading food and agricultural products company, ordered a 10kW REV dryer to process pet food and pet treats in the United States and Canada.

Moreover, EnWave has engaged in technology evaluation relationships with several other major meat and protein processors such as:

- ❑ **Jack Link's**, the number one meat snack manufacturer worldwide;
- ❑ **A U.S. based leader in the meat and prepared food industries**. The name of the partner company wasn't disclosed, but when we do an online search for "American meat and prepared food leader" the recurring names are Smithfield Foods, JBS USA, and Tyson Foods. All multi-billion-dollar companies;
- ❑ Another **major European meat processor** started conducting product development trials at EnWave's facilities in February 2017. After a thorough evaluation of the end products, signing a commercial license may be the next step; and
- ❑ A **major Australasian meat processor** that has been developing several new meat snack products since early 2017.

EnWave is in active negotiations with many more companies in this sector in various parts of the world. So we'll undoubtedly continue to see more news with developments in the meat area.

Cannabis 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 expand the application of EnWave's REV technology to the booming medical and recreational cannabis sector.

Two months later, the Company signed a royalty bearing agreement with **Tilray**, a major Canadian cannabis player with international presence. Tilray is an Authorized Licensed Producer as defined by Health Canada's Access to Cannabis for Medical Purposes Regulations (ACMPR).

The license grants the cannabis grower the exclusive right to use the Company's proprietary Radiant Energy Vacuum (REV) dehydration technology to dry and decontaminate cannabis in Canada.

In return for the exclusivity, the producer has purchased a small-scale 10kW commercial REV unit to enable advanced product development along with a large-scale 60kW commercial REV machine that will be used to initiate commercial production. Both machines are scheduled to be installed in July of this year.

Furthermore, the cannabis producer is required to achieve certain minimum royalty thresholds, and to purchase additional REV machinery in order to maintain its exclusivity. It is worth noting that the producer is projected to achieve a production capacity greater than 74 metric tons in 2018. The 60kW machine however, can only process approximately 25 to 30 tons annually, which means that it will need to buy at least one additional 60kW REV machine.

Moreover, the Licensed Producer must also pay royalties based on the amount of cannabis processed with EnWave's REV equipment. Royalties in the cannabis space

could be up to three times higher than what EnWave receives from companies that are active in the food sector.

In May 2018, Tilray ordered a second 60kW REV machine, which will be installed in Portugal. The unit is expected to be up and running in February 2019.



Cannabis use and possession has been decriminalized in Portugal since 2001.

In addition, back in April 2018, EnWave signed a TELOA with **a major Canadian cannabis player**. Although EnWave didn't release the name of its new partner, it did mention that it is one of Canada's largest licensed cannabis producers (LP). When doing an online search for the biggest cannabis companies, returning names are Canopy Growth, Aurora Cannabis, Aphria Inc., and MedReleaf Corp., all billion dollar companies!

The Licensed Producer was granted six months to evaluate EnWave's Radiant Energy Vacuum (REV) technology for cannabis decontamination and dehydration. During that period, the LP will rent a pilot-scale REV dryer, which will generate revenue for EnWave. Moreover, EnWave granted the LP an exclusive option to license the REV technology for processing cannabis in an unnamed European country.

The Seafood Category

Early 2018, **Seven Seas**, a distributor of a full range of seafood products, partnered with EnWave to develop new premium seafood-

based products. EnWave's REV technology enables an entirely new method of processing different types of seafood, including salmon, scallops, and oysters. Seven Seas is also considering a variety of different applications, such as salmon snack products, potentially with various other ingredients to give different flavor profiles. Yet other possibilities to develop are salmon jerky style products.

The TELOA involves renting a 10kW REV machine, which will be used by Seven Seas to continue with testing and product development. The objective is to advance processing techniques while completing marketing studies. If successful, Seven Seas will most likely enter into a commercial license agreement with EnWave.

Pharmaceutical Technology

Dehydration

A final pillar of EnWave's success is pharmaceutical applications. The commercialization of the powderREV and freezeREV technology platforms continues to progress for its two pharmaceutical partners Merck and Sutro Biopharma.

The powderREV machine for **Sutro Biopharma**, a pharmaceutical company based in San Francisco, is scheduled to be finished first. EnWave recently successfully conducted a pre-factory acceptance test. A factory acceptance test is currently ongoing. Once finished, this should trigger a go/no-go decision from Sutro to move the commercial scale REV machine from EnWave's Vancouver facilities to Sutro's San Francisco facilities for commercial startup in 2018.

If this REV machine is successful with the production of Sutro's products, the company will immediately go into commercial production, as its ingredient does not require FDA approval. In that scenario, Sutro Biopharma would pay EnWave a royalty based on the production of its pharmaceutical ingredient.

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. EnWave is now looking to finalize the **Good Manufacturing Practice (GMP)** certification of this machine, which would trigger the next stages of Merck's project.

Although it will take some more time to develop and commercialize freezeREV, the agreement with Merck provides revenues for EnWave as the machine and technology is further developed.

If the installation of the powderREV and freezeREV platforms in the pharmaceutical sector yields superior performance to incumbent dehydration technologies, it will solidify EnWave's value proposition with potential new partners in the pharmaceutical industry.

GOOD MANUFACTURING PRACTICES (GMP)

Good Manufacturing Practices (GMP) are the practices required in order to conform to guidelines for manufacture and sale of food, drug products, and active pharmaceutical products. These guidelines provide minimum requirements that a pharmaceutical or food products manufacturer must meet to assure that the products are of high quality and don't pose any risk to the consumer or public.

Good manufacturing practices, along with good laboratory practices and good clinical practices, are overseen by regulatory agencies in the United States, Canada, Europe, China, and other countries.

GROWTH DRIVERS

Drying and Decontaminating Cannabis

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.

PASTEURIZATION

Pasteurization is the process of heat processing a liquid or a food to kill pathogenic bacteria to make the food or beverage safe for consumption. The use of pasteurization to kill pathogenic bacteria has helped reduce the transmission of diseases, such as typhoid fever, tuberculosis, scarlet fever, polio, and dysentery.

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.

Worldwide the use of cannabis for medicinal purposes is being legalized. Thanks to the expanding market, the cost savings that can be generated with the REV technology, and the high royalties, cannabis could become an extremely profitable sector for EnWave.

We understand that there are lots of conversations ongoing with other

cannabis companies in Canada and abroad to sign up for a license agreement with EnWave.

EnWave Potentially Solving Major Military Issue

In June 2017, EnWave entered into a contract with the US Army Natick Soldier R&D Center 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 Radiant Energy Vacuum (REV) dried rations.

Warfighters consume the rations when they are deployed or in training. These are called Meals Ready-to-Eat (MREs). Deployed service members have been relying on them for more than 30 years.

The MRE is intended as a single meal and is issued in a durable tan plastic bag. Inside, each MRE provides an entrée, an assortment of sides and bakery items, beverage base powder, and an accessory pack that includes gum, tissue, a moist towelette, and seasoning.

Although the MRE has continuously improved in both form and function over the years, it has one major drawback, the fact that warfighters already have to carry up to 100 pounds of gear. This means that they have very limited space for storing food.

If fighters go into the field for three days, they have to carry nine bulky MREs with them. What often happens, is that they will 'field-strip' their operational rations by removing unwanted components to save weight, thereby sacrificing crucial nutrition.

Consequently, 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.

This is exactly where EnWave comes into the picture and why the US Army Natick Soldier

R&D Center signed a contract with the Company. The goal of the cooperation is to produce lightweight, shelf stable, nutritious, compressed food bars.

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.

Initial testing has focused on perfecting the power bars, so that they may be included as part of the MREs. Three primary factors were critical during these tests: warfighter feedback, nutritional content, and shelf stability.

Internal focus groups of up to 200 people involved in sampling of these new products have been very enthusiastic about the composition and flavor of the samples provided.



From fresh banana & blueberries to a shelf stable, compressed fruit medley bar

More results of tests conducted at EnWave's facility. In this case, fresh bananas and blueberries have been made into a shelf-stable, compressed fruit medley bar. Photo Credit: David Kamm, NSRDEC).

In addition, all MREs must meet nutritional standards. The REV protein power bars prepared have satisfied all these requirements. Finally, longer term studies to review shelf stability and durability under rigorous conditions are still underway but no issues have been encountered so far.

There are 24 different varieties of MREs currently approved for the military. The REV-

dried range under development includes protein bars derived from meat, dairy, vegetable, and whole eggs. If satisfactory results indicate further potential, these power bars could eventually serve as a replacement to the current suite of MREs.

This is a promising start to the development process. Test work will continue at EnWave's facility to refine the prototype products and ensure that they stand up to the precise requirements of the program. This ongoing work will also generate additional revenues for EnWave.

As the Company successfully advances further along the development process with favorable reviews, the overall outlook for a successful resolution increases. This in turn may lead to a decision to formally embrace the new power bars as part of the MRE program, and require suppliers to purchase REV machines in order to meet delivery commitments.

RECENT EVENTS

New NutraDried Fruit Stand Product Introduced

The Anuga FoodTec Conference in Cologne, Germany, is a trade fair for international food and beverage companies. It represents an opportunity to showcase new technology involved in food production. As an exhibitor of this conference back in April, EnWave demonstrated its REV technology to new potential clients in Europe and South America. These leads may evolve into TEOAs and/or sales agreements further down the road.

In addition, Anuga is an ideal place to highlight new products that have been developed. At this year's show, EnWave, for the first time, showed NutraDried's Fruit Stand product as a showcase to other potential manufacturers.

Fruit Stand is a healthy snack food based on servings of peaches, strawberries, mandarin oranges, pineapple, or blueberries that have been dried using REV technology. The line will be available exclusively through Amazon. The official launch at the powerful online sales

platform will be mid-April. Amazon has committed to provide additional internal marketing support to generate greater sales. For example, ads may target Amazon clients that have already purchased other dried fruit snacks. In order to prepare for the significant amount of expected orders, Amazon has already submitted purchase orders.



The Fruit Stand health snacks is exclusively available at Amazon in five different flavors.

Samples of the Fruit Stand flavors were presented during the Anuga conference and met with high approval. If the new line is successful it will then be made available for sale in high volume retail stores under a different brand name.

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.

EnWave Canada had revenue of \$1.77 million for the three months ended March 31, 2018 compared to \$2.84 million for the three

months ended March 31, 2017, a decrease of \$1.07 million. Although during the second quarter of 2018, REV machines were sold to Tilray, Pitalia, Van Dyk, and Nomad Nutrition, EnWave didn't reach the amount of sales that it did in the second quarter of last year. The revenue decline in the second quarter was also reflected in the six months sales numbers. Revenue for the six months ended March 31, 2018 reached \$3.89 million, a decrease of \$1.10 million compared to revenue of \$4.99 million for the six months ended March 31, 2017.

Amounts in \$000's	03/31/18	03/31/17
EnWave Canada Sales	1,805	2,844
NutraDried Sales	2,367	1,339
Total Sales	4,172	4,183
Cost of Goods Sold	2,877	3,155
Gross Profit	1,295	1,028
Expenses	1,814	1,807
Net Profit (Loss)	(519)	(779)
Diluted Shares Outs.	100,597	90,791
Diluted EPS	(0.01)	(0.01)
Selected income statement data for the quarters ended March 31, 2018 and March 31, 2017. Source: Company Filings		

EnWave Canada earned royalties of \$118,000 during the three months ended March 31, 2018 as compared to \$77,000 for the three months ended March 31, 2017 a growth of 53%. During the six months ended March 31, 2018, EnWave Canada earned royalties of \$321,000 as compared to \$199,000 for the six months ended March 31, 2017 a substantial increase of 61%.

The increase in royalties is very important. First of all, it indicates that a growing number of EnWave's clients are selling larger quantities of REV dried products. Moreover, the rise is also important because these revenues go straight to the bottom line. Royalties are expected to continue to go up in 2018 and beyond as new license agreements are signed and additional REV machinery comes online.

Revenues from NutraDried were \$2.40 million for the three months ended March 31, 2018

as compared to \$1.34 million for the three months ended March 31, 2017. For the six months ended March 31, 2018, NutraDried generated revenues of \$4.80 million, as compared to \$2.66 million for the six months ended March 31, 2017. The increase in revenue was due to NutraDried filling orders for Costco, as well as increased sales volumes to other retailers.

NutraDried reported net income of \$668,000 in the second quarter of 2018 as compared to net income of \$92,000 in the second quarter of 2017, **an impressive increase of \$576,000 or 626%!**

Also interesting to know is that EnWave achieved a gross profit of \$1.29 million in the second quarter of 2018, compared with \$1.03 million in the same quarter of 2017 an increase of \$267,000. Gross margin as a percentage of revenue was 31% for Q2 2018 compared to 25% for Q2 2017.

Balance Sheet As Of March 31, 2018

Most notable on the balance sheet, is the major difference in cash and cash equivalents. On November 15, 2017, the Company completed a prospectus offering prospectus offering and concurrent private placement of 9,530,000 Units of the Company at \$1.05 each for combined gross proceeds of \$10 million.

Amounts in \$000's	03/31/18	03/31/17
Cash and Cash Eq.	7,480	2,769
Restricted Cash	250	250
Trade Receivable	2,439	954
Due From Customers	2,118	2,988
Under Contract		
Inventories	3,997	2,396
Total Current Assets	16,516	9,832
Plant and Equipment	2,360	3,239
Total Assets	20,108	14,430
Trade and Other Payables	2,859	1,937
Total Current Liabilities	3,296	3,073
Long Term Debt	396	131
Total Liabilities	3,692	3,204
Total Stockholder Equity	16,416	11,226
Selected balance sheet data on March 31, 2018 and March 31, 2017. Source: Company Filings		

The net proceeds of the financing will be utilized to accelerate EnWave's growth. For example, several large-scale quantaREV and nutraREV units will be manufactured so that lead times become shorter.

Also, additional staff is being hired, such as a LEAN consultant to optimize the engineering and manufacturing process; a technical sales person to further expand the business development pipeline; and additional engineers to help with the installation and manufacture of the REV dryers.

In February 2018, the Company spent \$2.28 million to acquire the 49% non-controlling interest in NutraDried. The Company had net cash outflows from operating activities of \$77,000 for the first two quarters of 2018.

Inventory as at March 31, 2018 included completed machines and machine components of EnWave Canada of \$3.19 million. The increase compared to last year is also due to EnWave repurchasing a 100kW nutraREV machine from Hormel Foods.

OUTLOOK & VALUATION

In the past, food processing companies had to choose between minimizing their drying costs or producing premium dried products. With EnWave's REV technology, companies no longer have to choose, as they're able to produce high-value dried products at a much lower cost. The main goals of using REV technology are to shorten processing times, reduce operational costs and to produce higher-value products than previously achievable via alternative processing technologies with similar economics.

An increasing number of food, cannabis, and biopharmaceutical companies are realizing that REV is the way to go if they want to maintain their competitive advantage.

The sale of REV dryers is generating millions of dollars for EnWave. Moreover, with each additional REV unit becoming operational, the minimum quarterly royalties are increased proportional to the size of the machine. A 100kW machine will typically generate between \$200,000 and \$400,000 in royalties

per year at full utilization. As more and more machines are taken into production, EnWave will benefit big time.

With strong sales growth for Moon Cheese and a positive cash flow, EnWave has clearly set the stage for an outstanding 2018.

While EnWave has been achieving success in its expansion strategy across several sectors, within Canada and internationally, the rapid progression of its relationship with Tilray is significant for a number of reasons. Firstly, it should be noted that the cannabis sector is still within the early phases of legalization in many parts of the world (including Canada) and therefore the growth implications are much more attractive overall for this business unit.

Tilray is an established global leader in the cultivation and production of cannabis, including extensive distribution of medicinal cannabis products in Europe, and with a presence in many of the world markets that may deliver the highest growth prospects. This effectively provides an added measure of clout to the expansion objectives for EnWave in pursuit of other countries for installation of REV machines and licensing opportunities.

Tilray has chosen to partner with EnWave and utilize REV processing because it contributes to a more efficient overall production scenario for its business. And the stature of Tilray as a respected participant in the international cannabis market increases the likelihood of attracting additional licensed partners to use REV technology.

EnWave's management remains very bullish on the entire cannabis sector and continues to work towards securing additional partnership agreements that may build further leverage both in Canada and international markets.

Moon Cheese at Costco is an exciting success story in the making. Sales are clearly going very well, and each Costco purchase order represents significant revenue growth for NutraDried.

With solid profit margins and additional revenue opportunities, NutraDried is well positioned for growth, which in turn further

solidifies the business case for the use of EnWave's technology to produce high quality, nutritious snacks.

Moreover, we look forward to continued positive developments from ongoing research at the US Army Natick R&D Center. Securing the initial development program collaboration with the US Army Natick R&D Center was a breakthrough for EnWave. Just to get in the front door and be selected as a potential development partner involved an investigation to review the REV processing capabilities, and the Company itself. Natick also has visited the EnWave test facility several times since the cooperative effort commenced.

A successful outcome to this process would be extremely attractive for EnWave shareholders. Consider that military spending is typically very stable and less affected by variables in market cycles that consumer goods may face. Also, the scale of a production contract for the MREs developed using REV technology would probably involve the sale and installation of numerous large machines, and generate significant long term royalty payments to the Company.

Valuation

Given the still emerging nature of EnWave's earnings, a multiple-based valuation is challenging. Instead, we apply a Discounted Cash Flow (DCF) model.

Based on our estimate of 115 million shares outstanding, the intrinsic value of EnWave's shares derived from our model is \$3.46, about equal compared to our previous report.

We reiterate our buy recommendation for EnWave Corp. with a price target of \$3.46, which is 168% above today's stock price.

SHARE DATA & OWNERSHIP

As of March 31, 2018, EnWave had approximately 100.6 million common shares outstanding. In addition, the Company had approximately 8.5 million warrants

outstanding with an average exercise price of \$1.36.

Finally, EnWave has a little over 6 million stock options outstanding with a weighted average exercise price of \$1.11. Each stock option entitles its holder to purchase one common share of the Company.

The principal owners of the Company's common stock are DJE Investment (3.83%), Manulife Asset Management (2.23%), and Kimelman & Baird (1.14%).

MANAGEMENT

▣ MR. JOHN P.A. BUDRESKI - EXECUTIVE CHAIRMAN

Mr. Budreski has over 30 years of extensive capital markets and executive management experience. He was formerly a Vice Chairman of Cormark Securities Inc. from 2009 to 2012 and President and CEO of Orion Securities Inc. from 2005 to 2007, prior to its successful sale to Macquarie Bank. He has filled the roles of a Managing Director of Equity Capital Markets and Head of Investment Banking for Scotia Capital Inc. from March 1998 to February 2005 after starting out as a Managing Director of US Institutional Equity Group for Scotia Capital. He also held senior roles in investment banking and equity sales and trading for RBC Dominion Securities.

▣ DR. TIM DURANCE - PRESIDENT & CEO, DIRECTOR

One of the founders of EnWave, Dr. Durance has 35+ years' experience in the processed food industry and is the co-inventor of the Company's REV technology. Dr. Durance received his Ph.D. and M.Sc. in Food Science from UBC, as well as a B.Sc. in Microbiology from the University of Guelph and a B.A. in Anthropology from the University of Waterloo. He's the author of more than 75 peer-reviewed scientific publications, 16 patents, and numerous book chapters, scientific presentations, and invited lectures on technology and food processing. As EnWave's President & Co, his responsibilities include research and development related to all of the REV technologies, as well as ongoing intellectual property development.

▣ MR. DANIEL HENRIQUES – 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.

▣ MR. BRENT CHARLETON, CFA – SVP SALES AND BUSINESS DEVELOPMENT, OFFICER

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. 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.

ANNUAL INCOME STATEMENT FY 2015 – 6M 2018

All numbers in thousands

PERIOD ENDING	FY 2015*	FY 2016	FY 2017	6M 2018
Total Revenue	5,868	14,933	15,954	8,691
Cost of Revenue	4,689	10,383	11,654	5,970
	1,179	4,550	4,300	2,721
Expenses				
General & Administrative	2,089	1,989	2,072	1,199
Sales & Marketing	719	793	2,160	1,273
R&D	1,386	1,656	1,138	569
Amortization Intangible Assets	1,420	1,222	888	280
Stock-based Compensation	261	399	891	276
Total Operating Expenses	6,172	6,387	7,286	3,637
Net Loss Applicable To Common Shares	\$4,993	\$1,837	\$2,986	\$916

Annual Income Statement FY 2015 – 6M 2018. Source: Company Filings

* Note that in the Fiscal Year 2015 column all revenues and expenses generated by Hans Binder Maschinenbau – a former subsidiary of EnWave - have been excluded, due to its insolvency on September 29, 2015.



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