SmallCAPS Investment Research

EnWave Corporation (ENW)

January 07, 2017

EnWave Corporation offers industrial-scale dehydration technology for commercial applications in the food 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.

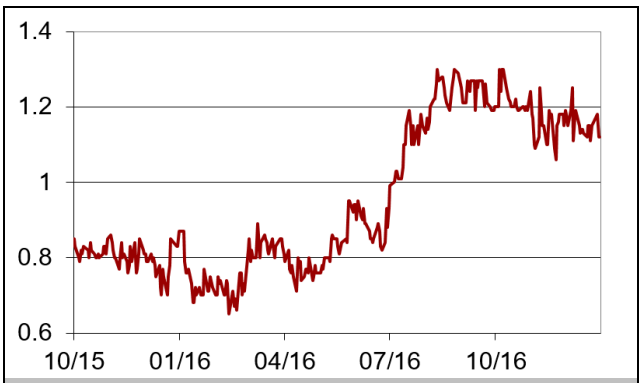
EnWave's fiscal year 2016, which ended September 30, 2016, was extraordinary on all fronts. The Company reported revenues of $14.9 million for the year, compared to $5.9 million in the prior year, up more than 150%. Net loss from continued operations was reduced from $5.0 million last year to $1.8 million in 2016. In its second and third quarter EnWave even achieved a positive net income.

Also, fiscal year 2016 was marked with remarkable progress in the commercialization of EnWave's REV technology. The Company added four royalty bearing licenses and signed numerous Technology Evaluation and License Option Agreements (TELOAs) with prospective royalty partners.

We reiterate our buy recommendation for EnWave Corp. with a price target of $3.64, which is 208% above today's stock price.

- Over the coming quarters, EnWave intends to aggressively pursue its commercialization strategy through confirming more REV machine orders, growing royalty streams with established royalty partners, and the increase of NutraDried LLP's Moon Cheese sales.

- Another major goal for EnWave in 2017 will be the installation and start-up of both a powderREV and freezeREV machine. The commercialization of both technologies continued to progress during 2016, with EnWave advancing the design and manufacture of scaled-up versions of each platform for Sutro Biopharma and Merck respectively. The successful installation of these platforms will solidify EnWave's value proposition with potential new partners in the pharmaceutical industry.



Market Data	
Price	C$1.18
Sector	Diversified Machinery
52-Week Price Range	C$0.60 - C$1.35
Shares Issued (m)	90.78
Market Cap (m)	$107.1
Listings	ENW (TSXV) & E4U (Fra.)
Website	http://www.enwave.net

THE COMPANY

EnWave Corporation is a Vancouver-based industrial technology company, that develops commercial applications for its proprietary Radiant Energy Vacuum (REV) dehydration technology.

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.

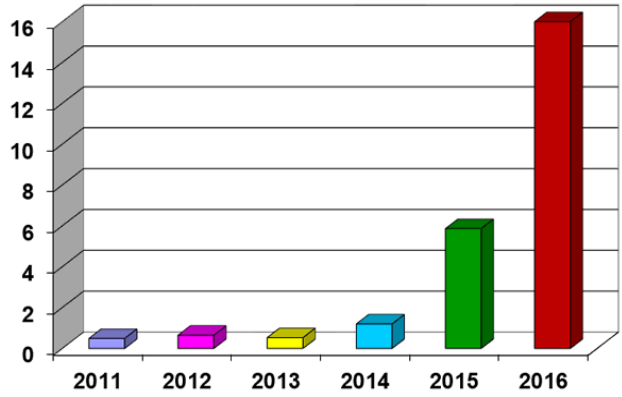
EnWave generates revenues from the following three sources:

- Machine sales and maintenance;
- Royalty streams from partners ranging between 2% and 10% on commercial products produced with a REV machine;
- NutraDried, a 51% owned joint venture, which sells healthy dried cheese snacks.

EnWave's fiscal year 2016, which ended September 30, 2016, was extraordinary on all fronts. The Company reported revenues of $14.9 million for the year, compared to $5.9 million in the prior year, up more than 150%. Net loss from continued operations was reduced from $5.0 million last year to $1.8 million in 2016. In its second and third quarter EnWave even achieved a positive net income.

These outstanding numbers can be attributed to higher sales of royalty-bearing Radiant Energy Vacuum machines, and the accelerated distribution of Moon Cheese through EnWave's 51% owned subsidiary, NutraDried LLP.

Thanks to all this activity, the Company reached positive cash flow from operations, one of its major goals for the year, of $1.2 million. In the prior year, it reported negative cash flow of $1.7 million.



EnWave's impressive revenue growth over the past six fiscal years.

Also, fiscal year 2016 was marked with remarkable progress in the commercialization of EnWave's REV technology. The Company added four royalty bearing licenses and signed numerous Technology Evaluation and License Option Agreements (TELOAs) with prospective royalty partners that are conducting initial testing and product development work.

Moreover, EnWave significantly strengthened its balance sheet, as it raised $5 million cash in a bought deal private placement at the beginning of the fiscal year.

Over the coming quarters, EnWave intends to aggressively pursue its commercialization strategy through confirming more REV machine orders, growing royalty streams with

established royalty partners, and the increase of NutraDried LLP's Moon Cheese sales.

The Company currently employs 35 people in Canada who operate a pilot plant and an engineering facility in Vancouver.

Clients

EnWave's international customer list truly validates its technology and potential. The Company's market strategy targets large, Tier 1 companies in the food and pharma sector, as well as Tier 2 players in niche markets and regions.

In most cases, EnWave initially signs research collaboration agreements with potential partners, offering them certain product and geographic exclusivity. After completing a satisfactory due diligence on the technology and market opportunity, those companies have the option to sign commercial agreements and place machine orders.

Thus far, EnWave has signed seventeen royalty-bearing licenses, thereby opening up eight distinct market sectors for commercialization, with companies that include:

- **Bonduelle**, a global leader in the production of vegetables;
- **Hormel Foods Corporation**, a multinational manufacturer and marketer of consumer-branded food and meat products, for the production of healthy dried meat products;
- **Gay Lea Foods**, a dairy co-operative comprised of over 1,200 Canadian farmers, to process cheese snack products for human and pet consumption;
- **Perdue Farms**, the third-largest chicken processing company in the United States;
- **Natural Nutrition**, for the production of berry products in Chile;
- **Milne Fruit Products**, for the production of several dehydrated fruit and vegetable products in the whole, fragmented and powdered form;
- **NutraDried LLP** to develop, manufacture, market and sell all-natural cheese snack products in the United States under the Moon Cheese brand;
- **Sutro Biopharma**, for the dehydration of a cell-free medium used in their patented protein synthesis process.

In addition, EnWave has signed Technology Evaluation and License Option Agreements with a growing number of companies such as Nestlé, Kellogg's, Ocean Spray Cranberries, Sun-Maid Growers, R.J. Reynolds, Merck Pharma, and many others.

NutraDried LLP

NutraDried LLP develops, manufactures, markets and sells 100% all-natural cheese snacks under the Moon Cheese brand. EnWave USA Corporation, a 100% daughter of EnWave Corp, holds a 51% stake in NutraDried, while ND Creations, a private company majority owned by a former director of EnWave, controls 49%. EnWave benefits from selling REV machines to the joint venture, while it also receives a revenue-based royalty of 5%.

In July 2013, the LLP began producing cheese snack products under the Moon Cheese brand in three flavors - Gouda, American Cheddar and Pepper Jack.

Since then, its distribution has expanded very rapidly. The cheese snack is now available in over 20,000 grocery stores across the United States and Canada. Recently, NutraDried confirmed that Moon Cheese will be sold at Ahold's 700+ supermarkets, which are known under brands as Stop & Shop, Giant Food Stores, Martin's Food Markets, and Peapod. Moon Cheese distribution was recently also broadened to 5,000 of the 8,000 United States stores of 7-Eleven.

The subsidiary's strongest accomplishment so far, is that Moon Cheese snacks are available at Starbucks. The adventure at the world's largest coffee chain started mid-July 2015, when the cheese snacks became available at approximately 3,400 Starbucks locations in the United States, as part of a 16-week long trial.

Because they were a big hit, Starbucks quickly expanded distribution to all of its 7,500 corporate stores in the US. Moreover, less than a month later, the large coffee chain also started selling Moon Cheese at its 1,400 corporate stores in Canada.

Production of Moon Cheese snacks.

In the fourth quarter of 2016, ended September 2016, sales of Moon Cheese were less than expected because Starbucks switched the Pepper Jack flavor to Mozzarella. Sales in the first quarter of fiscal year 2017 are expected to make up for this decline.

All in all, sales of Moon Cheese reached over $6 million in 2016. A strong increase compared with 2015 (Also read Financials).

A few weeks ago, several organizational changes were announced at NutraDried. Spire Brands, which was hired in 2015 as master distributor of Moon Cheese, was replaced by the non-exclusive distributor Slant Design. NutraDried has already worked extensively with Slant in the past, as it was responsible for the very successful introduction of Moon Cheese at Starbucks. Slant will again take over the existing distribution, which was originally established by the group.

In addition, Dr. Tim Durance, the President and CEO of EnWave, was appointed as the interim CEO of NutraDried.

There are several positive aspects to this reorganization:

- The distribution agreement with Slant is non-exclusive, so NutraDried can engage other parties that might be beneficial;
- We understand that in the past there was significant interest in private label deals for Moon Cheese, but they were never materialized. This will radically change as the new management won't pass up attractive deals;
- The new management is also open for toll processing opportunities. This would involve third parties bringing in their raw material to have it dried. NutraDried would simply charge a processing fee for this service; and
- NutraDried's margins and profitability will increase.

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 on next page).

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

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.

The key to the technology is the vacuum environment in which the energy is applied, because it reduces the atmospheric pressure, therefore lowering the temperature at which the moisture can efficiently be removed. This reduction of heat and oxidization minimizes the damage inflicted on the REV-dried products, preserving richer flavors, brighter colors and higher nutritional content.

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 detail 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.

The nutraREV platform has been built up to 100kW in power, and 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 $1.4 million and generates between $200,000 and $400,000 in royalties per year at full utilization.

nutraREV is EnWave's most popular technology and continues to grow among food companies.

Gay Lea Foods, the second largest dairy co-operative in Canada, owned by over 1,200 dairy farmers, started up a 100kW nutraREV machine to expand the production of its 'Nothing But Cheese' snack product line in Canada.

Nothing but Cheese is a delicious on-the-go crunchy snack made with 100% cheese and is sold under Gay Lea's well-known Ivanhoe cheese brand. It is available in two flavors: Cheddar and Monterey Jack with Peppers.

Since April 2014 Gay Lea has been operating a 10kW nutraREV unit to test both the product and its market potential. Because the company had secured additional distribution, it ordered a 100kW commercial unit in February 2016.

100% cheese. 100% delicious. Nothing But Cheese has all the nutrition of two cups of milk and only 100 calories.

Noteworthy is that Gay Lea's Nothing But Cheese won the 'Best New Cheese Award' and was a finalist for 'Best Dairy Manufacturing or Processing Innovation Award' at the World Dairy Innovation Awards, in London, UK. The

judging panel considered 211 entries from 37 countries in 18 categories.

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.

An example in this category is **Sutro Biopharma**, a pharmaceutical company based in San Francisco. Sutro signed a commercial royalty-bearing license and machine purchase agreement in May 2014. Shortly thereafter, EnWave delivered an 8kW prototype powderREV machine to Sutro to conduct a series of process optimization tests.

In September 2015, the pharmaceutical company ordered a commercial scale powderREV machine. The installation of the customized unit, at Sutro's GMP manufacturing facility in San Carlos, California, is scheduled for 2017.

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

Commenting on this upcoming event in a recent interview with Smallcaps Investment Research, Brent Charleton, the Senior Vice President, Business Development for EnWave said, "I think that the Sutro Biopharma relationship could be the "dark horse" in our investment case. If successful, their throughput capacity will press the need for additional machinery. I think that this is an area that could surprise a lot of people."

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.

In November 2013, EnWave signed a commercial royalty-bearing license with a division of **Bonduelle**, the world's leading processed vegetable producer. Bonduelle's global distribution reaches into over 100 countries worldwide, primarily selling fresh, frozen and canned vegetables. After signing the agreement, Bonduelle received an 18kW quantaREV machine to conduct tests and product refinement.

InFlavor vegetables offer all the convenience of frozen products, but with a texture and taste that is unmatched.

Blind taste test and qualitative studies conducted by the Institut de tourisme et d'hôtellerie du Québec among food service professionals and consumers, resulted in an unanimous vote, InFlavor vegetables are comparable to fresh vegetables.

In July 2015, EnWave installed, and started up the first 120kW commercial quantaREV machine at Bonduelle's facility. And in January 2016, Bonduelle launched InFlavor, a new

category of frozen vegetables produced with EnWave's REV technology. Late 2016, Bonduelle contracted EnWave to double the capacity of its REV dryer (Also read Recent Events).

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.

In December 2011, EnWave signed a Research and Development agreement with **Merck**, one of the world's leading pharmaceutical, chemical and life science companies. Under the terms of the 10-year agreement, both parties established a work plan for the production of a specifically designed non-GMP freezeREV dryer. Merck should bear all the costs associated with this process.

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 lyophilizer dried products.

In November 2015, EnWave commenced manufacturing a commercial scale freezeREV, for which it received an initial milestone payment from Merck. Additional milestone payments are expected on the delivery and start-up of the machine. In total, EnWave expects to eventually generate several million dollars of revenues from this deal.

LYOPHILIZATION

Freeze drying, technically known as lyophilization, is a dehydration process typically used to preserve a perishable material or to make the material more convenient for transport. Pharmaceutical companies often apply freeze drying on products such as vaccines and other injectables.

Freeze drying works by freezing the material and then reducing the surrounding pressure to allow the frozen water in the material to sublimate directly from the solid phase to the gas phase. By removing the water from the material and sealing the material in a vial, the material can easily be stored, shipped, and later reconstituted to its original form for injection.

Because lyophilization is the most complex and expensive form of drying, its use is usually restricted to delicate, heat-sensitive materials of high value.

Test results with freezeREV have been very encouraging, prompting the manufacture of a scaled-up REV machine for continued development and product testing. Although it will take some more time to develop and commercialize freezeREV, the agreement with Merck provides revenues for EnWave from the sale of the machine, and it again confirms the high potential of the technology when a giant like Merck decides to proceed after a long test period.

Expanding Patent Portfolio

EnWave currently holds, or has filed, 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's patent suite now consists of thirty-five patent approvals protecting its REV technology in countries such as the United States, Canada, the European Union, China, Hong Kong, New Zealand, Chile and Australia. In addition, many patent approvals are pending in other countries. In fact, in 2016, ten additional geographic patents related to the nutraREV, powderREV and quantaREV platforms were granted to EnWave.

These patents are an essential part of EnWave's royalty-generating business, 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, biotechnology is expected to be the fastest grower 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.

GROWTH DRIVERS

While EnWave's dehydration technology has plenty of applications, it's clearly excelling in a number of sectors such as fruits, vegetables, meats and dairy products.

Building Further Momentum in the Dairy Snack 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 significant success, other food companies worldwide are sensing an opportunity and have closed commercial agreements with EnWave to produce similar snacks.

The companies below have all closed a commercial agreement with EnWave to produce a REV dried dairy 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;
- **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 has recently started;
- **Dominant Slice** for Portugal and Spain. It recently launched a dried cheese product, coined Bit Cheese, for the European market. The snacks come in three flavors, cheddar (cheese with origin in England), Flamengo (cheese with origin in Holland), and spicy (also cheese from Holland, but more spicy).;
- **Agricola Industrial La Lydia SA** for Central America. It has received a 10kW nutraREV unit for initial production. The

goal is to expand the production capacity in 2017;

- **Ereğli Agrosan** for Turkey. The license actually grants the company the exclusive right to process a variety of fruit, vegetable and cheese products. One 2kW and two 10kW REV machines are up and running at Ereğli Agrosan's facility. In addition, the company ordered a 100kW machine a few days ago; and
- **Kesito LLC** for Greece. A 10kW commercial REV machine was installed a couple of weeks ago, which allows Kesito to complete product development and enter the European market with a high-quality, shelf-stable dried cheese snack product.

In addition, EnWave has signed a TELOA with a number of other dairy companies. In March of 2016, for example, it did so with a major **Australasian Dairy Company**. The company will rent a 10kW commercial-scale REV machine to conduct a focused research program.

Bit Cheese by Dominant Slice is now available in Europe in three flavors, cheddar, flamengo and spicy.

Last August, EnWave added another TELOA to that list, as it closed an agreement with the Mexican food processor **New Products R&D de C.V.** (NPRD). The agreement gives NPRD, during eight months, the exclusive right to use EnWave's REV dehydration technology to develop dried cheese products for the Mexican market.

And about a month ago, EnWave signed a Technology Evaluation and License Option Agreement with **a major European dairy processor**. Although few details were announced, we understand that the dairy company leased a 10kW Radiant Energy Vacuum machine, which will be installed at its facilities in February 2017. Subsequently, the company only has six months to conduct the necessary R&D work. Apparently, the key focus will be on developing healthy dried dairy snacks (Also read Recent Events).

Typically, EnWave receives a 5% royalty on all cheese snack sales.

We're convinced more cheese snack agreements for other territories will be signed, as the snacks are an obvious success and food companies worldwide are eager to launch new innovative products.

EnWave Excels In Dried Fruits Market

Also 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 these fruit related companies:

- **Natural Nutrition Limited d.b.a. Nanuva Ingredients**, a fruit processor located in Chile, that has positioned itself as a leading provider of 100% natural (with no additives) dried fruits with colours, shapes, flavours and nutrients very similar to those of fresh fruit. These healthy ingredients are used in the snack food, functional food, nutraceutical and cosmetics industry in Latin America. Because of the products' immense success, the fruit processor ordered a third 10kW dryer from EnWave in January 2017;
- **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. Following an extensive product and market development effort, Milne's

MicroDried products have been gaining traction with a growing network of customers. As a matter of fact, Milne recently placed an order for a 120kW quantaREV to expand its processing capacity. Machine construction has started and it is expected to be installed in 2017. Judging by the new machine purchase order, Milne clearly expects to ramp up its sales.

MicroDried products from Milne Fruit bring real fruit color, flavor and enhanced nutritional values to consumer products.

In addition, EnWave has signed a TELOA with the following companies:

- **Ocean Spray Cranberries Inc.** is an agricultural cooperative owned by more than 700 cranberry growers in North America. The company is very actively testing market dried cranberries. A commercial license may be signed shortly
- **Sun-Maid Growers of California** is a cooperative, owned by family farmers who grow raisin grapes all located within 100 miles of each other in the Great Central Valley of California. The cooperative is doing specific product development work at the moment; and
- **California Grape Co** is a California based grape producer that has the right to evaluate EnWave's REV technology to develop dehydrated crispy grape snacks. Intensified test work is ongoing. In fact, a commercial decision could be made in the near future.

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.

InFlavor vegetables are initially prepared the same way as all other Bonduelle processed vegetables: they are optimally washed, cut, and blanched. Then comes the key part of the InFlavor process, partial vacuum microwave drying. The vegetables are heated and partially dried at a low temperature for several minutes by EnWave's 120kW commercial quantaREV machine. This eliminates some of the water that vegetables contain and limits water release during preparation.

It truly separates InFlavor from all other frozen vegetables. Because the more water vegetables contain, the more ice crystals are formed during the freezing process, which damages their cellular structure. This phenomenon affects the texture and taste of vegetables, and is also responsible for the water that is released during the preparation.

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, a few days ago, Bonduelle contracted EnWave to double the production capacity of its existing 120kW dryer (Also read Recent Events).

Bonduelle will pay a production-based royalty between 3% and 5% on a quarterly basis and a monthly lease for the use of the EnWave machinery.

And in June of this year EnWave announced that **Merom Farms**, an agricultural and food production company located in British Columbia, Canada, will soon start selling wasabi-based products under a private label to food processors in Canada and the United States. The company is currently negotiating with several major distributors.

Merom Farms is a large commercial greenhouse operation that consists of 36

acres of covered greenhouse area. The family-owned operation has specialized in the production of peppers, which are marketed under the Green House Delight Foods Inc. brand.

Annually, it produces roughly 11 million pounds of yellow, red, orange and green bell peppers for grocery stores in Canada and the United States. The expansion into wasabi production and processing will complement Merom's core competency.

Merom has a two year lead time over its competitors with the production of high-quality wasabi, and already has decades of experience with the distribution of vegetables in Canada and the United States. The company is confident that it can capture a meaningful part of the wasabi market.

EnWave will receive a 5% royalty on the wholesale price of all wasabi products sold by Merom. Knowing that wasabi is a high-value product that can cost more than $25 per ounce, it's clear this could become another lucrative royalty stream for EnWave.

WASABI

Wasabi is a plant that originated in Japan, and traditionally has been used as a natural herb. Today, the wasabi stem is a primary condiment for Japanese dishes, especially for soba noodle, sashimi and of course for sushi. Freshly grated wasabi has a bright green color, and is characterized by its sticky texture with fresh scent and hot flavor.

Meat Snack Producers - Another Pillar of EnWave's Success

In addition to dairy, fruits and vegetables, meat is another pillar of EnWave's success.

The intention of most of these meat companies is to develop crispy meat snacks. Although similar snacks are already being produced with non-REV technology, 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 a royalty-bearing agreement with the following two companies:

- **Hormel Foods Corporation**, is a $15 billion dollar company known for its numerous meat and food products. In addition to a 100kW dryer, Hormel purchased a 2kW REV machine for product development and a 10kW REV machine for market studies. This indicates that Hormel is eager to develop and test new products with EnWave's technology.
- **Perdue Farms**, a leading food and agricultural products company, ordered a 10kW REV dryer in July 2016 to process pet food and pet treats in the United States and Canada. The initial TELOA with Perdue was signed in April 2015, after which R&D work commenced on a smaller scale REV unit. Because Perdue ordered a larger 10kW REV dryer, we're convinced that market tests went very well. In fact, we wouldn't be surprised if they already had some distribution lined up.

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

- **Maple Leaf Foods**, a major Canadian food processing company that employs approximately 12,000 people and exports to more than 20 global markets including the US and Asia. The agreement grants Maple Leaf the right to evaluate EnWave's REV technology for the potential production of a variety of food applications;
- **Jack Link's**, the number one meat snack manufacturer worldwide, extended the Technology Evaluation and License Option Agreement, as it continues to see tremendous promise in the REV technology;
- **Campofrio Food Group**, Europe's leader in the processed meats sector is conducting product development work using the REV dehydration technology. The company intends to create a number of new, healthy dried meat products for potential commercialization;
- **A Major Australasian Meat Processing Company**, received a REV machine late

2016 to begin product development and testing; and

- **A major European Food Processor** that already conducted some initial product development work. Detailed development work is ongoing on a rented 10kW REV machine at the company's own facility.

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 a steady news flow with developments in the meat area.

RECENT EVENTS

EnWave Starts Off 2017 With Big Bang

Although 2017 has only just begun, EnWave already sent out a strong message that it aims to build on last year's growth momentum. In the first week of the new year, it received repeat machine purchase orders from Ereğli Agrosan (100kW machine) and Natural Nutrition (10kW machine).

Due to tremendous interest from several leading food processors in Europe and Asia for its dried fruit, vegetables and cheese products, Ereğli Agrosan constantly needs to increase its production capacity. The dried cheese products are marketed under the Air Cheese brand name, while all other products are sold under the AgroREV brand name.

In a little over a year's time, this is Ereğli's fourth REV machine purchase. Initially, the company conducted product development work on a 2kW lab-scale REV machine. Late February of 2016, Ereğli purchased its initial 10kW dryer, and less than three months later it bought another 10kW dryer.

The license between EnWave and Ereğli Agrosan grants the latter the exclusive right to process a variety of fruits, vegetables and cheese products in Turkey using EnWave's REV dehydration technology. In order to retain its exclusivity for Turkey however, Ereğli must purchase – excluding the 2kW machine - at least four REV dryers on an agreed upon timeline.

The initial three dryers have now been purchased. The license further requires the Turkish company to submit a minimum of one more purchase order for at least one full-scale 100kW REV machine within three years of the start-up of the first small commercial unit.

Producing and testing REV dried strawberries at Ereğli Agrosan's facility.

Ereğli has been making tremendous progress in a short period of time thanks to its experienced, well-connected and well-capitalized management team and founders.

The agreement with Ereğli is potentially worth well over $2.5 million in machine sales alone. Knowing that a 100kW dryer generates between $200,000 and $400,000 in royalties per year at full utilization, it's obvious that this could become a very lucrative deal for EnWave.

Natural Nutrition purchased a third 10kW Radiant Energy Vacuum machine. The Chilean producer of high quality dried fruits has to increase its production capacity as it's also experiencing strong worldwide demand for its products.

The Chilean company's first REV machine is currently running at full capacity, producing about 25 pounds of finished product per hour. The second 10kW REV dryer was installed in the fourth quarter of 2016 and doubled the company's production capacity. The third dryer is scheduled for delivery in a few months. And we understand that Natural Nutrition is already considering adding

another facility to expand its production capacity of REV dried fruits even further.

They process over thirty high quality fruit products using REV technology, including maquiberries, blueberries, strawberries, rosehip, pineapple, grapes and cherries, which are sold under the Nanuva Ingredients brand name.

Part of the powder conveyor at the Natural Nutrition facility.

In just twenty months, Natural Nutrition has positioned itself as a leading provider of 100% natural dried fruits with colours, shapes, flavours and nutrients very similar to those of fresh fruit. These healthy ingredients are used in the snack food, functional food, nutraceutical and cosmetics industry in Latin America, the United States, Asia and Europe.

It goes without saying that this is a very favorable development for EnWave as it benefits both from the sale of machinery, and the receipt of revenue-based royalty in the range of three to ten percent.

Bonduelle Doubles Production Capacity

Natural Nutrition and Ereğli Agrosan aren't the only companies that decided to increase their REV dried production capacity. Bonduelle - the world leader in ready-to-use vegetables - engaged EnWave late 2016 to double the throughput of its existing 120kW REV machine.

This is a clear indication that Bonduelle must have received favorable feedback from existing and potential clients that it decided to move forward with expanding the production capacity of its dryer.

The machinery improvement will allow Bonduelle to commit to larger purchase orders from its customers, as well as further the enhancement of the already high quality InFlavor premium frozen vegetable brand.

The market potential is enormous for Bonduelle. According to a 2014 food study of the food service segment conducted by the research firm Technomic, it could exceed eight million kilograms (17.6 million pounds) annually. Initially, Bonduelle targets businesses that deal in manufacturing as well as large chain restaurants.

It is noteworthy that the InFlavor process can be applied to all vegetables that have a high water content, such as tomatoes, zucchini, eggplant, etc.

Constant Deal Flow

Ever more companies in a growing number of sectors recognize that EnWave's REV technology is ideal to distinguish themselves in the worldwide marketplace.

During December 2016, EnWave signed no less than four TELOAs. The first one was with **a major American pulse crop processor** to explore the potential for dried pulse crop products. The agricultural company entered the TELOA after it thoroughly conducted product-focused application trials at EnWave's pilot plant facilities in 2016. The company will rent a 10kW REV dryer for further product development work at its own facilities. It has a maximum of six months to enter into a commercial agreement.

The second TELOA was signed with **Born Wild LLC**, a seafood processor located in the United States. Born Wild serves the global seafood market with processing capabilities and sourcing from Alaska, through Canada, Washington, Oregon, and northern California. It is led by several individuals with vast seafood processing experience.

Born Wild will collaborate with EnWave's product development team at the Company's pilot plant facility to develop several unique seafood snack products for human consumption. Noteworthy is that EnWave's food science group has already conducted quite a lot of product development work in the dried seafood snack space.

Born Wild has a term of seven months to exercise its option to license the use of REV dehydration technology.

And earlier in the month, EnWave signed a TELOA with **a major dairy processor and a major meat processor, both located in Europe.**

The dairy company will lease a 10kW REV machine. During a six months test period the dairy processor has the exclusive option to license the use of REV technology for the production of dairy products within an agreed European territory. When this option is exercised, it may involve the purchase of larger commercial machinery.

It is worth noting that the dairy company already conducted product development trials at EnWave's facility last September. Therefore, the results must have been satisfying, as the company is now expanding its efforts and budget to do more test work.

Milk plays an important role in Europe as it is produced in every single EU member state. According to information by the European Dairy Association, the dairy industry represents approximately 15% of the turnover for the total food and drink industry in Europe. An impressive number! No surprise that the top-5 European dairy companies are all giant businesses: Nestlé, Lactalis, Danone, FrieslandCampina, and Arla Foods.

Also, the major meat processor obtained an exclusive option to license the use of REV technology for the production of meat snacks within an agreed European territory.

Similar to the dairy processor, this company did some initial test work at EnWave's facilities a couple of months ago. It will now conduct more product development trials at the same facility in February 2017. After a thorough evaluation of the end products, signing a commercial license may be the next step.

FINANCIALS

EnWave earns revenue from two business segments: EnWave Canada and NutraDried. EnWave Canada generates revenue from the sale of REV machinery to royalty partners, rental revenue from short term rentals of REV machinery to prospective royalty partners, and royalties earned from royalty partners. NutraDried generates revenue from the sale of Moon Cheese to retail and wholesale distribution channels.

EnWave Canada had revenue of $8,825,000 for the year ended September 30, 2016 compared to $3,273,000 for the year ended September 30, 2015, an increase of 169%. In fiscal year 2016, revenue was generated from commercial equipment sale contracts with Sutro Biopharma and Merck for powderREV and freezeREV machines in the pharmaceutical vertical. The Company also generated significant revenue from nutraREV and quantaREV machine sales to Gay Lea Foods, Milne Fruit Products, Ereğli Agrosan, Natural Nutrition, and many others.

Part of EnWave Canada's revenue were royalties, which are payable as a percentage of the value of products produced by sold REV machinery. EnWave Canada earned royalties of $249,000 for the year ended September 30, 2016 compared to $32,000 for 2015, and increase of 678%. This increase was obviously due to EnWave's royalty partners' advancing the commercialization of REV products in the marketplace.

Revenues from NutraDried were $6,108,000 for the year ended September 30, 2016 compared to $2,595,000 for the year ended September 30, 2015, another solid increase of 135%. NutraDried's year-over-year revenue growth is attributable to increased sales and distribution activity with distributors and retail customers of Moon Cheese. A significant portion of sales growth was due to NutraDried

sales to Starbucks. Moon Cheese also continues to be sold at thousands of North American retail outlets.

The net loss from continuing operations for the year ended September 30, 2016 was $1,837,000 compared with a loss of $4,993,000 the prior year, another outstanding improvement.

Amounts in $000's	09/30/16	09/30/15
EnWave Canada Sales	8,825	3,273
NutraDried Sales	6,108	2,595
Total Sales	**14,933**	**5,868**
Cost of Goods Sold	10,383	4,689
Gross Profit	**4,550**	**1,179**
Expenses	6,387	6,172
Net Profit (Loss)	**(1,837)**	**(4,993)**
Diluted Shares Outs.	90,379	84,465
Diluted EPS	(0.02)	(0.06)

Most important income statement data for the fiscal years ended September 30, 2016 and September 30, 2015. Source: Company Filings

Fiscal 2016 marked a year of significant commercial advancement for EnWave. Since October 1, 2015, the Company signed four new royalty-bearing commercial licenses; it received purchase orders for two large-scale and six small-scale commercial REV machines; and it signed or extended no less than thirteen TELOAs.

The first large-scale purchase order was from Gay Lea Foods for a 100kW nutraREV machine. Gay Lea had been operating a 10kW nutraREV to develop and satisfy initial demand for its Nothing But Cheese snack. Because it had secured additional distribution for the snack, Gay Lea had to purchase a bigger commercial unit. Meanwhile the machine has been successfully commissioned. Royalties from the 100kW machine could reach $250,000 annually when operating at full capacity.

EnWave also received a purchase order from Milne Fruit Products for a 120kW quantaREV machine. After an extensive product and market development effort, Milne's MicroDried products have been gaining traction with a growing network of customers. The new REV machine will double Milne's processing capacity. It is expected to be installed at the company's facility in the spring of 2017.

In addition, EnWave received purchase orders for small-scale REV machines when it signed royalty bearing commercial licenses with Agricola Industrial La Lydia, Kesito LLC, Perdue Farms, and Ereğli Agrosan.

Finally, only a few days ago Natural Nutrition, a fruit processor from Chile, purchased a third small-scale REV machine to expand its commercial production.

Next to signing actual commercial agreements, EnWave also engages in Technology Evaluation and License Option Agreements. During the past year, EnWave signed a TELOA with companies such as Ultima Foods Incorporated, Maple Leaf Foods Inc., Jack Link's Inc., and many other groups in Europe, Australasia, and the Americas.

It is worth noting that EnWave earns revenues under TELOAs from short-term REV machine rentals as well as from fees for access to EnWave's R&D facilities and product development expertise.

Balance Sheet As Of September 30, 2016

On September 30, 2016, the Company had working capital of $6,897,000, compared to $3,044,000 as at September 30, 2015.

The cash and cash equivalents balance was $4,590,000 on September 30, 2016 compared to $1,101,000 as at September 30, 2015, an increase of $3,489,000. EnWave completed a bought deal private placement on October 21, 2015 for aggregate gross proceeds of $5,000,000. Moreover, EnWave secured the release of $1,500,000 of restricted cash relating to a portion of the collateral in support of a project related to a customer of EnWave's former subsidiary, Hans Binder Maschinenbau GmbH.

Inventory as at September 30, 2016 was $1,681,000 compared with $1,024,000 a year before. The higher inventory, which includes completed machines and parts of EnWave Canada and food product and packaging supplies for NutraDried, is due to increased sales activities by both EnWave Canada and NutraDried.

Amounts in $000's	09/30/16	09/30/15
Cash and Cash Eq.	4,590	1,101
Restricted Cash	250	1,530
Trade Receivable	770	1,025
Due From Customers Under Contract	1,542	659
Inventories	1,681	1,024
Total Current Assets	**9,449**	**6,075**
Plant and Equipment	3,679	3,808
Total Assets	**14,962**	**12,939**
Trade and Other Payables	1,084	1,332
Total Current Liabilities	**2,552**	**3,031**
Long Term Debt	37	597
Total Liabilities	**2,753**	**3,628**
Total Stockholder Equity	10,787	8,069

Most important balance sheet data on September 30, 2016 and September 30, 2015. Source: Company Filings

OUTLOOK & VALUATION

In the past, food processing companies had to choose between minimizing their drying costs or producing premium dried products. Thanks to 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.

As EnWave's unique dehydration technology is becoming widely known, companies recognize its potential. The food industry is extremely competitive and producers are constantly looking to make the difference. For the first time in many years a brand new dehydration technology has entered the market, which is faster and cheaper than freeze drying, and has better end product quality than air drying or spray drying.

An increasing number of food and biopharmaceutical companies are realizing that REV is the way to go if they want to maintain their competitive advantage. EnWave's business model allows for territorial exclusivity, therefore it is simply a matter of signing an agreement first before a competitor snatches away the rights for a certain country or product.

Investors can only be pleased with EnWave's outstanding achievements in fiscal year 2016. Although its quarterly results are still a bit lumpy, as can be expected from a company in full expansion, it's important to look at the progress year-over-year. And that progress is positive by all measures.

To date, EnWave has entered into seventeen royalty-bearing commercial licenses with major food processing and pharmaceutical companies. All of these licenses earn, or may start to earn royalties in the near future, for EnWave. The true beauty of royalties is that they go straight to the bottom line!

In addition, EnWave continues to pursue revenue growth by signing additional TELOAs that may lead to royalty-bearing licenses, which are accompanied by machine purchase orders. In December 2016 alone, the Company signed four such agreements.

Noteworthy is that EnWave's momentum with non-North American companies is also improving. Especially in Europe, the Company has been very successful lately. Dominant Slice Lda, a Portuguese snack company, recently launched its very own dried cheese product, coined Bit Cheese. And at the Greek company Kesito LLC, a 10kW commercial REV machine was recently installed to produce a high-quality, shelf-stable dried cheese snack product.

Furthermore, Ereğli Agrosan, a Turkish company that produces high-value, natural products and derivative products for the food, cosmetic and health sectors, is progressing

rapidly. It has already purchased four REV machines.

Moreover, with their InFlavor process, Bonduelle is able to expand its product offering by literally introducing a new category of vegetables into the frozen food market. Major investments totaling six million dollars were made in order to evolve from laboratory production to mass production for the North American market. Three jobs were initially created and Bonduelle plans to add 20 more in the coming years.

Markets are highly diversified and InFlavor vegetables can be used in so many ways that they have the potential to transform cooking habits in the kitchen. Positive feedback received from food service professionals, as well as influential key players in several niche markets, confirm the market potential for the InFlavor innovation, which the company evaluates at more than eight million kilograms.

Another major goal for EnWave in 2017 will be the installation and start-up of both a powderREV and freezeREV machine. The commercialization of both technologies continued to progress during the year, with EnWave advancing the design and manufacture of scaled-up versions of each platform for Sutro Biopharma and Merck respectively.

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

All these encouraging events will soon positively impact EnWave's financials. EnWave is worth much more than its stock price indicates today.

Valuation

EnWave's technology works and is validated by many commercial agreements. The dehydration market is large and spread over many different sectors.

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 98 million shares outstanding, the intrinsic value of EnWave's shares derived from our model is $3.64, about equal compared to our previous report.

We reiterate our buy recommendation for EnWave Corp. with a price target of $3.64, which is 208% above today's stock price.

SHARE DATA & OWNERSHIP

As of December 15, 2016, EnWave had approximately 90.78 million common shares outstanding. In addition, the Company has 3.125 million warrants outstanding with an exercise price of $1.20 and 225,000 agent's warrants with an exercise price of $0.80. Each warrant entitles the holder to purchase one common share of the Company until October 22, 2020 and October 22, 2017 respectively.

Finally, EnWave has a little over 3.51 million stock options outstanding with a weighted average exercise price of $1.27. 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 (6.39%), Manulife Asset Management (2.75%), Kimelman & Baird (1.38%), and Petercam S.A. (0.54%).

MANAGEMENT

- **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. 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.

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.

ANNUAL INCOME STATEMENT FY 2013 – FY 2016

All numbers in thousands

PERIOD ENDING	FY 2013	FY 2014	FY 2015*	FY 2016
Total Revenue	**5,448**	**4,554**	**5,868**	**14,933**
Cost of Revenue	3,796	3,976	4,689	10,383
	1,652	**578**	**1,179**	**4,550**
Expenses				
Administrative	1,994	2,117	2,089	1,989
Sales & Marketing	979	1,165	719	793
R&D	2,675	1,591	1,386	1,656
Amortization Intangible Assets	1,905	1,432	1,420	1,222
Stock-based Compensation	1,118	608	261	399
Net Loss Applicable To Common Shares	**$7,772**	**$6,706**	**$4,993**	**$1,837**

Annual Income Statement FY 2013 – FY 2016. 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.

TSX Venture: ENW

Company Headquarters

744 West Hastings St., Suite 425
Vancouver, BC V6J 0B5
Canada

Company Contact Information

Brent Charleton, Senior Vice President Business Development
Phone: +1 778.378.9616
bcharleton@enwave.net

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Contact: editor@smallcaps.us

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