

METALUB S.A.

An Investment in the Production and Sale of Re-Refined Oil in Central America

Given there is no re-refinement of used oil into quality base oil in Central America, there is substantial opportunity to improve the environment and do it profitably.



PESCO BEAM Used Oil Re-Refinery

Metalub, S.A.

Location	San Jose, Costa Rica
Founders	Bill Abraham (CEO), Richard Feldmann (CTO), and Luke Staengl
Loan Sought	\$8 Million
Terms Sought	8 years, 2-year grace period
Purpose:	To build a used-oil re-refinery and open 4 Metalub oil change centers in Costa Rica
Year 8 Projection	Revenue \$9 million; EBITDA \$4.6 million
Debt Ratio	55%
Projected DSCR	2.1 to 3.4 during repayment period
Growth Stage	Early Operations
Contact	Michael Caggiano 506-8710-2573
Webpage	www.Metalub.net

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One improperly disposed
oil change can
contaminate 5 million
liters of water

About Metalub

Metalub is a used-oil re-refining company based in San Jose, Costa Rica. Its core business is the collection and re-refinement of used oil using advanced technologies so that more than 80% of the by-products of the re-refining process have a profitable, commercial use. In 2014, Metalub began operations: collecting used motor oil in Costa Rica from large fleets (truck, taxi, and bus) and oil change and lubrication centers. It ships the used oil to the United States for re-refinement, and imports blended lubricants made from re-refined base oil to Costa Rica for sale under the Metalub label and slogan "Change more than your oil":



¡CAMBIE MÁS QUE SU ACEITE!

Metalub plans to build a plant in Costa Rica capable of re-refining more than 250,000 liters per month (LPM) of used oil.

When the Costa Rica plant is completed, the Company will expand its used-oil collection to fleets and manufacturing processes throughout Costa Rica and process it into high-quality base oil and asphalt extender locally.

The majority of the re-refined base oil will be blended with additives, bottled in private-label containers, and sold in the regional market as lubricants, repeating the sustainability cycle again. The asphalt extender will be sold to road builders.



Lubricant products will quickly grow to at least 95% of the Metalub's output by revenue, although it is relatively easy to redirect sales to base oil if demand warrants.

Metalub is a High Social Impact Investment

Besides helping to improve the environment, Metalub will provide 75-100 direct jobs. Additional jobs and entrepreneurial opportunities will be provided in low-income areas through the establishment of Neighborhood Used Oil Collection Centers.

LNG is currently operating: collecting used oil and selling lubricants made from re-refined base oil. The used oil is currently sold to US re-refiners.

The collection of used oil is key to consolidating the used-oil supply for the future Costa Rica refinery. Metalub will acquire large quantities of used oil by giving customers credit for their used oil. The credit may be used to purchase Metalub products at a lower sales price.

Used-oil collection provides a competitive advantage for Metalub. By collecting and re-refining a customer's used oil and offering blended lubricants made from re-refined oil, Metalub is providing "cradle-to-cradle" service that no other lubricant distributor can offer.

Environmental Benefits of Re-refining Oil

Base oil never wears out. It gets dirty and filled with toxins, but it can be recovered and reused over and over again.

Collection and Re-refinement of used oil preserves the water, air and soil. If improperly disposed oil reaches surface or ground water drinking supplies, the contamination can be long term. Used oil contains numerous toxic substances that are known to cause cancer. Improperly dumped motor oil from just one 5-liter oil change could contaminate up to 4 million liters of fresh water.

Oil burnt for fuel releases carbon oxide, toxic heavy metals, or other pollutants including arsenic, cadmium, lead, and PCBs. Metalub reduces greenhouse gases and toxic pollution by re-refining. As a consequence, Metalub helps reduce global warming.

Oil poisons wildlife and their habitats. Ocean and freshwater fish exposed to oil aren't good to eat and can cause long-term health effects in humans. Metalub can help protect marine environments.

Re-refining saves energy. When re-refined, one barrel of used oil produces the same amount of motor oil as 42 barrels of crude oil---while requiring about a third of the energy. When used oil is burned or dumped and not recovered via re-refinement, new crude oil must be found, extracted, refined, and transported so that new base oil can be produced and delivered.

Re-refining transforms used engine oil into a renewable resource and helps keep oil where it belongs: in vehicles and out of the environment. Someday, all motor oils will be made from re-refined base oil.

Without re-refining, there are only two real options for discarding used oil generated in developing countries: burn it or dump it.

Burn it. Companies with industrial boilers consume it as fuel, often adding to greenhouse emissions and polluting the air with contaminants.

Dump it. Used oil is often poured into landfills and rivers or in the ocean via storm drains. This too can severely pollute the environment.

Metalub's new re-refinery will reduce carbon emissions in Costa Rica at a rate equivalent to adding a new Manuel Antonio Park every two years.

Social Benefits, Too

The environmental choices we make inevitably affect the economy. Businesses and the jobs they produce, especially tourism and agriculture, depend upon clean air, fresh water, biodiversity, and fertile land. If we pollute our natural resources they won't last very long. By using re-refined oil, environmental assets, invaluable to a country's economic wellbeing, will be less vulnerable to pollution.

Many countries import their oil. By using locally re-refined oil, a country can reduce its dependence on foreign oil, help reduce its trade deficit, provide more local jobs, and be environmentally friendly.



The Used Oil Re-Refining Process

All lubricants and motor oils are a blend of 80-85% base oil and 15-20% additives. Metalub will build a state-of-the-art plant that re-refines used oil into base oil in Costa Rica. This process is less expensive and more energy efficient than using crude oil.

Products. The plant will be capable of re-refining used oil into several products: base oil Groups I and II, asphalt extender (a by-product of the process) blended lubricants (with a blending plant), and, eventually with hydro-treating, agricultural oils and base oil III (for synthetic lubricants).

Approximately 80% of used-oil collected from vehicles can be turned into useable product; the rest is primarily water.

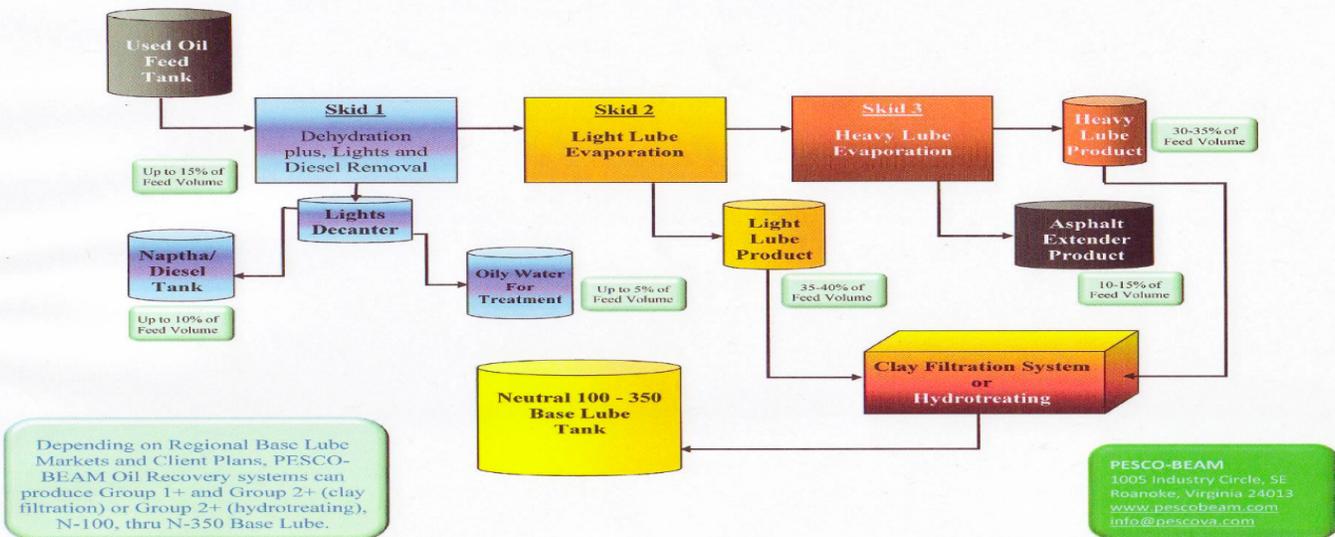
Metalub re-refined lubricants meet or exceed all the toughest standards for engine protection. They are American Petroleum Institute (API) licensed and they comply fully with all API, SAE, and vehicle manufacturers' warranty requirements.

PESCO BEAM Environmental Solutions will build the plant

PESCO-BEAM, a US/Indian company, will design, build and initiate operation of the used oil re-refining plant. PESCO-BEAM has built and commissioned 12 state-of-the-art used-oil recovery plants around the world and is a leader in scaled, used-oil re-refining. It produces high-quality base oils (as indicated by API and ASE approvals) without creating additional waste that can damage the environment.

Importantly, the PESCO-BEAM construction is modular. It is built in the US and India, skid mounted, and delivered completely assembled on site. If the feedstock supply and product demand warrant, the plant can easily be expanded beyond its initial capacity and hydro-treating capabilities can be added. This permits lower initial capital investment and operating costs for a technology that, according to the United Nations Environment Programme, is already among the most competitive re-refining technologies.

Basic Used Oil Recovery System Flow Diagram



Proofs of Concept: Justification for Re-refinery

Metalub has 1.5 years of operational experience collecting used oil and selling environmentally sustainable lubricants in Costa Rica. Our experience provides us with three findings needed to justify the construction of a re-refinery in Costa Rica.

Proof of Feedstock (Supply). There is more than sufficient used oil in Costa Rica to run the new re-refinery at capacity. By the end of 2016, we estimate there will be about 3 million LPM of feedstock available (not including an additional 3 million LPM of ship's sludge).

Metalub needs to collect only about 8% of the country's imported oil. Even with limited storage facilities and unfavorable exporting economics, Metalub is already collecting one in eight liters necessary to maximize plant output. And, the used oil market is opening up. More and more companies are approaching LNG to take their used oil and benefit from our environmental solutions.

The Company has obtained letters of intent from Costa Rican used-oil generators for significantly more used-oil input than necessary to operate the plant at capacity. The company has collected and sent to the US for re-refining more than 260,000 liters of used oil, **reducing CO2 emissions by 200,000 kg**. Currently it is collecting 35,000 LPM.

Proof of Concept (Demand). Customers are willing and eager to buy re-refined lubricants to help improve the environment, as long as they are not threatening the health of their engines. Metalub sales have reached as high as \$29,000 per month and \$250,000 per month of new-client sales are currently in the pipeline pending product testing (including FEMSA, Dole, and Avis Rental Car). As a consequence, Metalub has a solid database of client price and volume information that proves the market for re-refined lubricants exists and is waiting to be tapped.

Proof of Product Quality. Almost all of the early adopters of Metalub's sustainable products have insisted on testing before putting re-refined oil in their engines. Metalub now has a database of independent oil-test results representing 40 companies and more than 200,000 kilometers of driving in all kinds of vehicles.

Universally the test results have been excellent, proving that Metalub meets or exceeds American Petroleum Institute (API) standards and is as good as, if not better, than most brands on all key product specifications. Test results have also indicated that Metalub will be able to promote longer drain intervals than those currently promoted by competitive brands in the Costa Rica market.

2013 Oil Imports into Costa Rica (LPM)

Oils and Greases	2,437,645
Hydraulic Oils	<u>272,466</u>
Total	2,710,111

Source: *Direccion General de Aduanas, Hacienda, Gobierno de Costa Rica*

Markets for Lubricants and Base Oils in Costa Rica

There are about 3.0 million LPM of lubricants used in Costa Rica (not including agricultural oils) and there exists an equal amount of used oil. Of about 150 lubricant brands sold in Costa Rica, only three have more than 10% of the market (Castrol, Texaco, and Pennzoil), with the largest being Castrol with 17%.

Metalub plans to be selling 165,000 LPM of lubricants once the new re-refinery has been operating for a year. We project that the Company will garner about 7%-8% of market share by year 5.

If, at any time, Metalub believes that it cannot sell the plant's lubricant capacity, it always has the option to not convert base oil into lubricant and to sell the base oil into the commodities market.

Metalub's Significant Accomplishments

Metalub is fully operating: collecting used oil in Costa Rica, re-refining it in the US and selling lubricants in Costa Rica.

Operations. Secured a warehouse in La Uruca where it has installed an 8000-gallon used-oil consolidation tank, pump, and piping matrix that transfer used oil both into and out of the tank. Metalub has assembled a state-of-the-art used-oil collection truck that meets all Costa Rica transportation regulations and guidelines. The warehouse offices have been renovated and provide professional office and meeting space areas including a waiting area for oil-change customers. Space is also used for the storage of Metalub's lubricant products.

Sales. Formed an alliance with a US company that is blending Metalub's high-quality motor oils. These products are made from re-refined Group II base oil and meet the highest API standards.

Developed a retail lube-change business that includes the Uber fleet as a customer.

Have built a potential lubricant sales pipeline of about \$250,000 per month.

Marketing. We have:

- Begun a comprehensive media outreach campaign to newspapers, radio and television groups in Costa Rica.
- Developed a brand name, logo and slogan for the "Metalub" lubricant line and obtained trademark registration.
- A Spanish and English web site: <http://www.metalub.net> and Facebook page.
- Corporate literature (product specifications, product labeling, and promotional brochures).
- Developed our customer value proposition which is listed below.

Funding and Liquidity. To date Metalub has received \$2.42 million in equity contributions from Founders and Angel investors.

Metalub is in the process of raising an additional \$4 million from 2 sources:

\$3 million: H-REFF venture capital fund (www.h-reff.com) has provided an indicative financial term sheet for a \$3 million equity investment in Metalub (Contact: Fernando Alvarado, CEO fernando.alvarado@seca-ca.com 506-2291-2244)

\$1 million: PESCO BEAM has committed to reduce the re-refinery cost in exchange for equity.



Metalub offers a full line of re-refined lubricants including motor and gear oils and hydraulic and transmission fluid.

Value Proposition: Metalub is the Only Environmentally Sustainable Lubricant in Costa Rica:

- Metalub makes our clients proactive agents against climate change.
- Metalub is the only lubricant provider in Costa Rica that offers "cradle-to-cradle" product service.
- Metalub is good for your engine because it is extra refined, making it better than conventional oil.

Financial Projections

Key Forecast Assumptions

This forecast assumes that Metalub has successfully raised funds to construct the plant. In 2018, the plant comes on line and, for the year, is averaging about 60% operational capacity to produce re-refined oil products in Costa Rica. By 2019, the plant is operating at close to 100% of capacity. The 8-year projected internal rate of return is about 25% (non-leveraged) and 43% (leveraged).

The model assumes that Metalub successfully secures debt financing of \$8 million (Terms: 8 years, 6% interest, 24-month grace period). DSCR varies from 2.1 to 3.4 during the repayment period.

Lubricants will represent more than 90% of Metalub's sales revenue by 2019 (the remainder will be base oil and asphalt products), although it is relatively easy to increase sales of base oil if price and demand warrant.

Metalub oils are less costly to produce because they use collected feedstock and will be manufactured in Costa Rica, reducing transport and labor.

Once plant operations begin in Costa Rica, Metalub's oil costs and blended lubricant are expected to be significantly lower than most competitor costs. Metalub lubricant products are projected to have strong average net margins of about 37% (in barrels).

By comparison, non-plant net product margins for the blended lubricants are projected to average about 15%.

Annual Revenues are Projected to Reach \$9 Million; EBITDA \$4.6 Million (in \$000)

	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenues									
Base Oil	0	0	669	446	0	0	0	0	0
Asphalt Extender	0	0	150	153	156	159	162	166	169
Ag Oil			0	0	0	0	0	0	0
Blended Lubricants from CR Plant	0	0	3,021	4,233	6,296	6,379	6,464	6,550	6,637
Blended Lubricants from US Blender	188	1,415	954	1,044	1,142	1,250	1,368	1,497	1,638
Lube Centers	10	360	473	584	642	682	702	723	745
Total	198	1,775	5,267	6,459	8,236	8,470	8,696	8,935	9,189
Costs									
CapEx for Maintenance	8	50	50	50	50	50	50	50	50
Cost of Goods	110	985	2,188	2,494	3,045	3,146	3,256	3,375	3,504
Cost of Sales	184	483	854	903	970	996	1,024	1,052	1,081
Total Costs	302	1,517	3,092	3,447	4,065	4,193	4,330	4,477	4,635
EBITDA (not including Capital Contributions)	-104	257	2,174	3,012	4,171	4,277	4,366	4,459	4,554
Capital		-4,000	0	0	0	0	0	0	0
Cash generated from activities	-104	257	2,174	3,012	4,171	4,277	4,366	4,459	4,554
Cash to/from Investors	-104	-3,743	2,174	3,012	4,171	4,277	4,366	4,459	4,554
Interest Payment	-9	-120	-120	-600	-432	-380	-326	-268	-207
Depreciation	-24	-924	-924	-924	-924	-924	-924	-924	-924
Pre Tax Net Income	-137	-4,786	1,131	1,489	2,816	2,974	3,117	3,267	3,424
Corp Tax 0%	0	0	0	0	0	0	0	0	0
Debt Repayment			-808	-857	-908	-963	-1,020	-1,082	-1,147
Cash flow	-113	-4,671	1,246	1,556	2,831	2,934	3,020	3,109	3,201
Debt Service Ratio (including series A coupon)		2.14	2.34	2.07	3.11	3.19	3.24	3.30	3.37

The Metalub Team has an Impressive Record Growing Used-Oil Re-refineries and Costa Rica Companies

William P Abraham, CEO Metalub

William (Bill) is the CEO and Co-founder of Metalub. Bill is also PESCO-BEAM's Latin America and Caribbean sales representative. Bill is the former General Manager for Intel's \$800-million, 3500-employee Costa Rica plant. Bill, a Stanford University graduate, has held management positions in Intel factories in Costa Rica, China, the Philippines, and the US.

Richard Feldmann, CTO Metalub

Richard has worked with PESCO-BEAM since 2000, selling, engineering, designing, and constructing waste-oil recovery plants. He has actively pursued process improvements and team building in oil recovery systems. He is also a co-founder of Metalub.

Luke Staengl, CEO PESCO-BEAM

As CEO and President, Luke has led PESCO-BEAM



Bill, Richard, Luke, and Metalub at the Costa Rica Facilities

from modest beginnings in 1991, to a company with international recognition. Luke has been the driving force behind several high technology environmental companies since 1979.

He founded and served as CEO of three companies involved in converting biomass to bio-fuels, fiber, feed, and other high-value products. He has lead and directed the design, construction, and operation of several plants that produced fuel ethanol from corn and industrial wastes. Luke was founding member and served as President of the Virginia Ethanol Association for 8 years.

Common Share Ownership

	1-Aug-16		Pro-Forma Series A Preferred	
	Common Shares	% issued	Common Shares	% issued
Founders				
William Abraham	4,333	16.1%	4,333	6.3%
Richard Feldmann	4,333	16.1%	4,333	6.3%
Luke Staengl	4,333	16.1%	4,333	6.3%
Founder Total	13,000	48.3%	13,000	19.0%
Angels				
Angel Total	13,890	51.7%	13,890	20.3%
TOTAL	26,890	100.0%	26,890	39.3%
Post Series A				
Pesco Beam Contribution			7,850	11.5%
Series A Conversion			30,000	43.9%
Employee Comp. Shares (FV)			600	0.9%
Series A Compensation Shares			1,500	2.2%
Series A Compensation Warrants			1,500	2.2%
Total			41,450	60.7%
TOTAL			68,340	100.0%

100,000 shares of common stock are authorized; 26,890 are issued

Use of Funds

The Company plans to borrow approximately \$8 million to build the Costa Rica re-refining plant and 4 lubricenters for a total cost of about \$11.5 million. The Debt Ratio is 55%.

Metalub is in the process of raising \$4 million from equity investors including: \$3 million from H-REFF private equity fund (pending review and approval) and \$1 million from PESCO BEAM (through a reduction in plant manufacturing cost). See p. 6 for details.

The Company requires approximately \$410,000 project development work to achieve "shovel-ready" status for the Costa Rican plant. Under this scenario, Metalub will buy land and build a structure to house the plant. Shovel-ready status includes engineering and design work at PESCO-BEAM and local architecture and engineering work that will result in full construction plans for the plant including tank farms, all permitting, and site development.

Once shovel-ready status is achieved, accurate cost numbers can be obtained, a construction contract executed, and a credit agreement negotiated with a financial institution for debt financing of approximately \$8 million.

With debt financing in hand, funds will be used to build the 280,000 LPM re-refining plant, purchase the full design, installation, and service-support package offered by PESCO-BEAM to minimize risk, and ensure successful and efficient operations of the plant.

Total Project Investments

LNG Assets/Prior Investment	\$	2,920,000
PESCO Re-refinery Plant and Blending Line Equipment/Installation	\$	7,240,000
Project Development Work to Achieve "Shovel Ready"	\$	410,000
Land/Buildings/Civil Infrastructure	\$	1,325,000
Logistics Resources for Plant	\$	210,000
Growth of Existing Business	\$	1,635,000
Lube Center Investment	\$	770,000
Total	\$	14,510,000

Modular plant components will be built by PESCO-BEAM and moved in containers to the plant site. The modular design will allow future capacity expansion and hydro-treating capabilities as demand permits. Civil infrastructure and plant construction will take about 12 months.

Additional funds (\$770,000) will be used to build up to 4 Metalub "sustainable" oil change centers in the San Jose GMA. About half of these funds will be earmarked for marketing and publicity of the centers.

About \$1,635,000 will support current operations including additional collection and delivery trucks, warehouse expansion, product purchase and working capital for sales and sales force development.

Liquidity and Potential Exit Strategies

- Metalub has applied for admission to the Costa Rica private equity market (MAPA).
- Metalub may apply in the future to trade its shares publicly on an exchange in Latin America.
- Metalub could be sold to a larger environmental management or oil company.

Costa Rica Re-Refinery (2017)

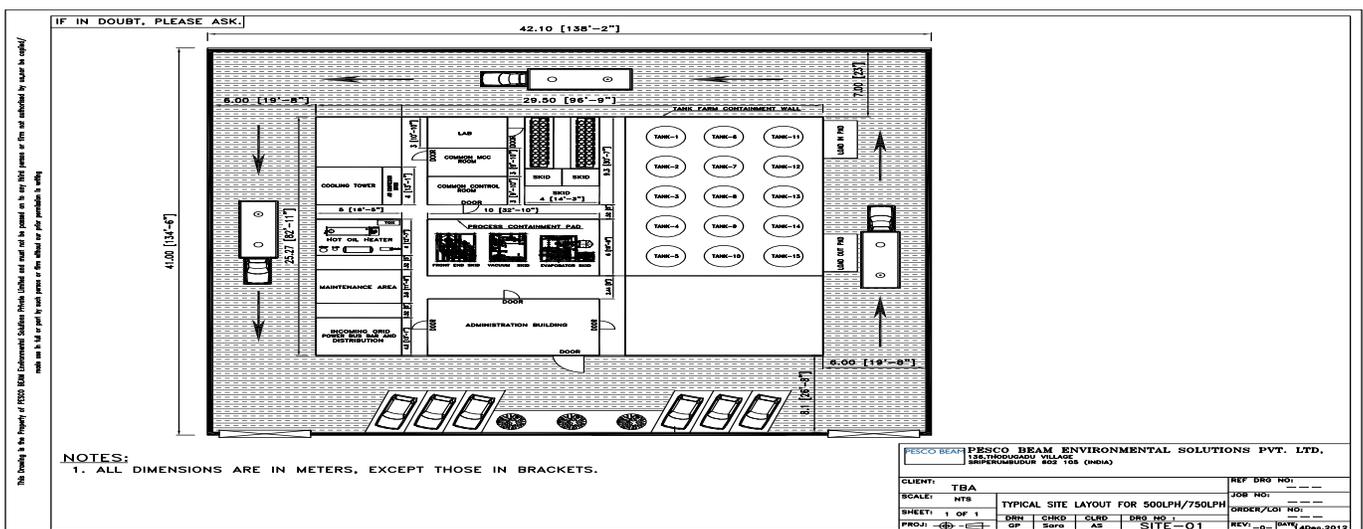
Metalub will build a re-refinery with a capacity of 280,000 LPM for a cost of about \$9.2 million (plant, blending facility, associated infrastructure, and expansion capabilities).

Metalub is currently seeking to purchase land that could be designated a free-trade zone (zona franca) in the Guanacaste region in northwest Costa Rica. To allow for expansion, Metalub requires at least one hectare of land.

Metalub anticipates that under the best-case scenario, due to the modular nature of the plant, the plant could open within one year of receiving financing and government permits. Lubricants, base oil, and asphalt would be produced. Within 6 months of opening, API licenses are expected, allowing the start of API certified lubricant lines.



Site Layout



Metalub Management Team and Shareholders

The LNG management team has core competencies in waste-oil recovery technology, operations management, and is experienced in doing business in Latin America and specifically Costa Rica. PESCO-BEAM will be a principal of LNG in Costa Rica. As such, the project is assured on-going, best-in-class technology services and support.

The key startup team members (and partners) are William "Bill" Parker Abraham, Luke Staengl, and Richard Feldmann. Together they have over 100 years of management and technology business experience. Bill will manage the enterprise from start-up.

William Parker Abraham: Partner/Project Developer and Start-up Manager

Bill is the founder and President of Osa Pacific Partners LLC, which provides management and equity investment services. He has helped finance equity investments in five startup companies and is currently providing consulting services to clients from Central and North America.

Bill is a professional CEO who has managed operations and manufacturing processes in and outside of Costa Rica. Prior to starting Osa Pacific Partners, Bill was a 25-year employee of Intel Corporation. His last position with Intel was that of Site General Manager of the \$800 million, 3500-employee Costa Rica plant. Bill has managed Intel semiconductor products assembly and test factories in Costa Rica, China, the US and the Philippines. Bill's experience starting new technologies and technical operations will help ensure a smooth start up for LNG's Costa Rica operations.

Bill is a board member of several Costa Rican companies, including Red Bag Solutions SA (a waste management company that provides solutions for on-site treatment of medical and bio-hazardous waste), PAC SA (a bio-degradable soap distributor), and Coriport SA, (an airport concession company at Daniel Oduber International in northwestern Costa Rica). He has also served as a board member of the CRUSA Foundation, and is President of the board of Osa Conservation. Bill received a bachelor's degree in Electrical Engineering and Computer Science from Stanford University in 1982. He is a US citizen permanently residing in Costa Rica.

Luke Staengl: Partner/Technology Provider

In 1991, Luke founded Pragmatic Environmental Solutions Company (PESCO) as an answer to the increasing demand for on-site, reasonably priced, skid-mounted solvent and oil-recovery systems. In 1997 PESCO-BEAM was formed with the merger of PESCO and BEAM an Indian company that had provided PESCO with contract manufacturing services. As CEO and President of PESCO-BEAM Luke has led it from modest beginnings, to a company with international recognition.

Luke has been the driving force behind several high technology environmental companies since 1979. He founded and served as CEO of three companies involved in converting biomass to bio-fuels, fiber, feed and other high-value products. He has lead and directed the design, construction and operation of several plants that produced fuel ethanol from corn and industrial wastes. Luke was founding member and served as President of the Virginia Ethanol Association for 8 years. Luke is a German citizen residing in the US.

Metalub Management Team and Shareholders (cont.)

Richard Feldmann: Partner/Technology Support

Richard has been a consultant and authorized sales representative for Latin America and the Caribbean for PESCO-BEAM from 1997 to present. Working through a partnership with PESCO-BEAM, he has engineered, designed and constructed oil and solvent recovery systems that are in operation worldwide.

He is a member of the National Association of Investigative Specialists and a biochemistry advisor/tutor at the *Instituto Tecnológico de Monterrey*, Mexico. He earned an Associate of Science and Masters in Electricity and Biochemistry from the *Instituto Tecnológico de Monterrey* in 1988, a Bachelor of Science from Florida State University in 1980, with a Comprehensive Minor in Biochemistry, and Electronic Engineering from the University of Miami, in 1974 with a Major in PLC Systems and Circuit Boards. Richard is fluent in Spanish.

From 1992 to 1999, Richard served as President of Global Extended Warranties, a first-of-its-kind company for the automotive market in Latin America. Since then he has been actively pursuing process improvements and team building as a base for oil recycling facilities. He has two decades of experience in helping businesses thrive and develop, with extensive work and experience in new business organizing, planning, marketing and communication, case management and counseling, writing and editing, throughout Latin America and elsewhere. Richard is a US citizen living in Miami, Florida.

Franklin Chang Díaz, Ph.D., Advisor

NASA astronaut and entrepreneur, Franklin R. Chang Díaz is the Chairman, CEO, and President of Ad Astra Rocket Company (AARC), located in Costa Rica and Houston, Texas. Dr. Chang Díaz, inventor of the Variable Specific Impulse Magnetoplasma Rocket (VASIMR[®]) and other advanced propulsion technologies, founded AARC in 2005, after 25 years of service as a NASA astronaut. AARC is dedicated to the development and commercialization of the VASIMR and related technologies. AARC raised private equity funding on the MAPA prior to qualifying for the public Costa Rica *Bolsa Nacional de Valores* where it is currently trading.

Born in San Jose, Costa Rica, Dr. Chang received a Bachelor of Science degree in mechanical engineering from the University of Connecticut in 1973 and a doctorate in applied plasma physics from the Massachusetts Institute of Technology (MIT) in 1977.

Selected by NASA in May 1980, Dr. Chang Díaz became an astronaut in August 1981. A veteran of seven space flights, he has logged over 1,601 hours in space, including 19 hours and 31 minutes in three spacewalks. He retired from NASA in July 2005.

As a visiting scientist with the M.I.T. Plasma Fusion Center from October 1983 to December 1993, he led the plasma propulsion program there to develop new technologies for future human missions to Mars. From December 1993 to July 2005, Dr. Chang Díaz served as Director of the Advanced Space Propulsion Laboratory at the Johnson Space Center where he continued his research on plasma rockets.

He is an Adjunct Professor of Physics at Rice University and the University of Houston and has presented numerous papers at technical conferences and in scientific journals. He holds four Doctorates "Honoris Causa" (Doctor of Science from the Universidad Nacional de Costa Rica; Doctor of Science from the University of Connecticut, Doctor of Law from Babson College, and Doctor of Science from the Universidad de Santiago de Chile.

In April 1995, the government of Costa Rica conferred on him the title of "Honorary Citizen." This is the highest honor Costa Rica confers to a foreign citizen, making him the first such honoree who was actually Costa Rican born.

Metalub Management Team and Shareholders (cont.)

Michael Caggiano, Ph.D., MAPA Sponsor

Michael was a co-owner of Talley & Co., LLC, Irvine, CA, a small investment bank and brokerage, that helped capitalize projects in Costa Rica and the US (biotechnology, high-tech medical equipment, coffee, and hospitality). He has authored seven private placement memorandums (PPMs) for companies primarily in Costa Rica including Café Britt (currently a \$130+ million company). He has also owned and managed businesses in Costa Rica including a 75-person, 3-hotel Costa Rican hospitality group that he took public in the US (OTCBB).

Michael has served on the board of several corporations and non-profits including Café Britt, the *Mercado Restringido (MORE) Bolsa Nacional de Valores* (the advisory committee that helped establish the MAPA); Heal the Bay (a non-profit organization dedicated to cleaning up and preventing waste oil dumping in Santa Monica Bay, California); and Los Angeles County Sanitation District 33 (wastewater control). He also has previous experience with start-ups: he was elected to the first City Council of Malibu.

Michael was a Graduate Fellow at The RAND Corporation in Santa Monica, CA where he wrote public policy studies in the areas of finance and criminal justice. While at RAND, he earned a Ph.D. and M.Ph. He also holds a MPA from the University of Southern California and a BA from Pomona College. Michael has held several US National Association of Securities Dealers (NASD) licenses including Registered Representative (Series 7); General Securities Principal (Series 24); Financial and Operations Principal (Series 27); Uniform State Law (Series 63). He has been certified by the *Bolsa Nacional de Valores* as a MAPA sponsor. Michael is a US citizen currently living in Costa Rica.

Other Shareholders

Anne Slaughter Andrew served as U.S. Ambassador to Costa Rica 2010-2013. She was a founder of New Energy Nexus, LLC (a consulting firm advising companies and investors on strategies related to clean energy technology). She currently serves as Chairman of TerViva, LLC, in addition to serving as an advisor to a number of start-up clean energy businesses. She belongs to the Board of Directors of Ad Astra Rocket Company, the Board of the Natural Resources Defense Counsel, Purdue University – Global Affairs Strategic Advisory Council and the Telluride Foundation and EARTH University in Costa Rica.

Joe Andrew is the Global Chair of Dentons (one of world's largest law firms) and former Chairman of the Democratic National Committee (DNC). **Peter Wolfson** is US Chief Executive of Dentons.

Steve Aronson is the founder of Cafe Britt. He presides over *Proparques* (a non-profit National Parks Conservancy) and is the main investor in *Salvaguarda*, LTDA (an importer and installer of water saving fixtures). He is the past president of the Costa Rican-American Chamber of Commerce (AMCHAM).

Pedro Joaristo A. is a board director and *fiscal* of Banco BCT one of Costa Rica's most prominent private business banks. He was President and CEO of Financiera Londres Ltda until it was sold to BCT S.A in 2007.

Metalub Management Team and Shareholders (cont.)

BLP Abogados is the largest law firm in the region and is consistently ranked as one of the top law firms in Central America. It has received the Chambers Law Firm of the Year award for 2013 and is the first law firm in Costa Rica to be certified under the *Bandera Azul* program for its carbon offset efforts.

Mauricio Salas is a founding partner of BLP Abogados and a board member of Metalub SA. He has legal expertise in Business, Corporate & Commercial Law, International Trade Law, and Environmental Law. He was appointed by the Government of Costa Rica as an arbitrator for both the Dominican Republic–Central America Free Trade Agreement and the Mexico–Costa Rica Free Trade Agreement. His work has been recognized by the Guide to the World’s Leading International Trade Lawyers and Latin Lawyer’s Leading International Trade Lawyers.

Don McShane worked in institutional bond trading for Merrill Lynch and Lehman Bros. He founded MacShane Capital Management, a portfolio management company and operated it until retiring in 2006.

Francis Vincent is co-owner of Industrias Panorama, an outdoor advertising company with 50 years of advertising experience. He has spearheaded the successful startup of Megagraf, a sister company in printing solutions, and has also managed one of the most reputable clubs in the country (Vertigo). Francis has an extensive social and business network and has brought important clients to Metalub.

Alberto Trejos, Ph.D. Is a newly appointed independent board member for Metalub SA. He received his doctoral degree in Economics with honors at the University of Pennsylvania. He has been a faculty member at Northwestern University, visiting professor at the University of Michigan, Research Affiliate at Institut de Anàlisi Econòmica de Barcelona, and professor and Dean at INCAE Business School.

As Costa Rica’s Minister of Foreign Trade, he led the negotiation of CAFTA. He was also President of the Board of CINDE, the agency in charge of attracting foreign direct investment, and member of CONASSIF, the entity that regulates and supervises Costa Rica’s financial system. He participated in the design and negotiation of the country’s pension system reform.

He is a partner at CEFSA, Costa Rica’s largest bureau of macroeconomic analysis. He is also a board member for different Costa Rican corporations, such as BAC San Jose bank, Cuestamoras, El Financiero and DIPO, a distributing company.