

Emefcy Group Limited (ASX: EMC): Transforming Wastewater Treatment



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An aerial photograph showing a lush green golf course on the left, featuring several sand traps and water hazards. A paved road runs along the right edge of the golf course, separating it from a vast, flat, light-colored landscape that appears to be a dry lake bed or a salt flat. In the far background, a range of mountains is visible under a clear sky.

Emefcy's commercially available wastewater treatment solution potentially disrupts the economics of large existing markets while addressing a growing global need for water

Corporate Overview



Capital Structure¹

Exchange Listing Details	Exchange: Ticker	ASX: EMC
Ordinary Shares on Issue ^{2,4}	No.	199,937,410
Share Price (as at 14 May 16)	A\$/share	0.505
Market Capitalisation	A\$m	101.0
Redeemable Note Outstanding ³	A\$m	2.8
Cash (as at 31 Mar 16)	A\$m	9.8
Enterprise Value	A\$m	93.9
52 Week High	A\$/share	0.59
52 Week Low	A\$/share	0.185

Top Shareholders⁴

Holder	Shares Held	% of IC
Pond Venture Nominees III Limited	28,944,080	14.5%
Plan B Ventures I LLC and Plan B Ventures II LLC	16,018,178	8.0%
Employee Equity Administration Pty Ltd	14,573,642	7.3%
Israel Cleantech Ventures	11,133,603	5.6%
Bori Liberman (BHL Pension Pty Ltd)	10,108,295	5.1%
Etyan Levy (Co-Founder and CEO)	9,267,180	4.6%
Ronen Shechter (Co-Founder and CTO)	9,267,180	4.6%
Energy Technology Ventures LLC	7,001,707	3.5%
GE Ventures Limited	4,015,719	2.0%
Total	110,329,584	55.2%

Notes:

- Assumes AUD:USD exchange rate of 0.7466
- After balance of First Milestone shares (11,300,499 in total) are issued. Excludes an additional 22,500,000 shares to be issued to Emefcy vendors subject to satisfaction of the Second Milestone. Excludes options outstanding.
- Redeemable Note to True North Venture Partners L.P issued as consideration for the sale of their equity interest in Emefcy, of which half the value is payable on deferred terms and the balance is subject to satisfaction of the Second Milestone. Non-convertible interest free note.
- Post the issue of all the First Milestone Deferred Consideration Shares. Announced to the ASX on 12th April 2016.

Source: Bloomberg as at May 14th 2016. Company Announcements.

Share Price Performance



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Investment Highlights



- ✓ Product shipping now addresses multi-billion dollar global market opportunity
- ✓ First full-scale municipal contract in construction, will be commissioned June 2016
- ✓ First international contract in US Virgin Islands can be referenced throughout the Americas
- ✓ Pipeline of 39 potential projects estimated at A\$15m including China, Australia & 1st sale-of-water opportunity
- ✓ Production facilities upgraded to support SABRE2, doubling margin at up to A\$30m/year in sales
- ✓ Global wastewater investment predicted to reach US\$93bn in the 40 most robust markets by 2016*
- ✓ Strong balance sheet with US\$7.2m in cash as at 31 Mar 2016

*Source: United Nations, UNESCO, Goldman Sachs

Seasoned Team Experienced in Building a Global Enterprise



Richard Irving

- Executive Chairman, Emefcy
- \$3B in shareholder value created
- Multiple startups, 2 Nasdaq IPOs – 30 years in operating & investor roles
- Proven ability to disrupt large, existing markets: Brooktree, Microcosm, Transitive, LiveRail, & more
- \$240M Venture funds founded, raised & managed



Eytan Levy

- Founder & CEO, Emefcy
- Former Partner, Israel Cleantech Ventures
- Co-founder and CEO of AqWise, a Global Wastewater Treatment company with 350 installations in more than 30 countries
- BSc (cum laude) in Chemical Engineering (Technion) and an MBA



Ross Haghighat

- Non-executive Director, Emefcy
- Chairman – Triton Systems
- Managing Partner Newburyport Partners
- Founded 9 private and public cos with combined shareholder value of \$3.8B & two billion dollar plus exits (Coretek, Aduro)
- Raised nearly \$500M private & Public Funds
- Director at Aduro Biotech (Nasdaq: ADRO), Chairman of FRX Polymers and Founder & Chairman Triton Systems Group



Peter Marks

- Non-executive Director, Emefcy
- 30+ years experience in corporate finance, specializing in capital raisings (for listed and unlisted companies), underwriting, IPOs and venture capital transactions.
- Participated in over \$2B in public and private capital raised
- Executive and Non-Executive Director of a number of listed entities on the ASX and AIM



Robert Wale

- Non-executive Director, Emefcy
- Managing Director of BlueSand Consulting
- 30+ years of executive level experience in the global water industry in multiple roles in Australia, USA & throughout the Asia-Pacific region
- Significant experience managing businesses across the cycle, from early stage startup to maturity including Memtech

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Our Vision is to Replace This...



Large, centralized wastewater treatment plant:

- **Huge footprint** – Not in my backyard
- **Very high capex** for long-term capacity
- **Very energy-intensive** – high opex
- **Noisy, smelly, very obvious**
- **Very hard to reuse water** without huge new pipe network – more capex

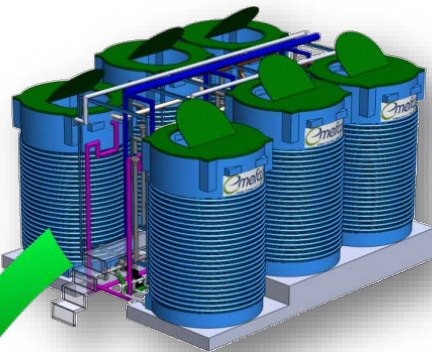


...With Emefcy's Solution



Small, distributed wastewater treatment plant:

- Flexible footprint **blends into neighborhood**
- **Just-in-time capex** for near-term capacity
- Very energy-efficient – low opex
- No odour, quiet, neighborhood-friendly
- Local water reuse avoids huge pipe capex



How Emefcy Transforms Wastewater Treatment



Commercial-
Stage
Wastewater
Treatment

Solutions for a
Rapidly Growing
Global Market

NOW: Sign contracts to sell and deploy plants in multiple geographies

2017: Sell water as a service in addition to selling plants - much more profitable

2017: Enter China market: estimated 40,000 opportunities for Emefcy-type plants over next 5 years

Target by 2020: Global leader in target segments

Ongoing: Expand market footprint with new products serving A\$8B in existing markets

Emefcy Goal: Become Global Leader In Target Segments By 2020



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Phase I - Now:
A\$140M/year niche market drives reference sales to main market

Phase II - 2016 – 2017:
A\$5.4B/year target market: Higher margins, bigger deals

Phase III - 2018 – 2019:
Revenue acceleration + A\$2.7B/year segment diversification

SABRE Sales:
Introduce SABRE in high need markets: resorts, & smaller communities

SABRE Installations:
SABRE plants are a reference sell to larger customers

Build Channel, Prove Sale-of-Water:
Build direct sales & integrator & rep network

SABRE 2 & SUBRE:
Sell water where possible

Enter China:
Set local partnerships & production to attack huge Chinese market opportunity

Distribution Partners:
Secure multiple distribution partners for target markets & geographies

EBR:
Enter A\$2.7B industrial wastewater market with ZERO OPEX solution

2016 Goals For 2020 Target of Market Leadership: Updates



Goal	Why This Matters
<ul style="list-style-type: none"> First revenue from Ha-Yogev project in Q1 2016 - ACHIEVED Complete 1st municipal deployment by June 2016 – on track 	<ul style="list-style-type: none"> Proves SABRE technology on a <u>commercial scale</u> - an important reference for future customers
<ul style="list-style-type: none"> Secure at least 2 new SABRE contracts including at least one new geography by December 2016 – 1 ACHIEVED Achieve cumulative signed contracts of A\$1M in 2016 – Ahead of plan, A\$620K booked year-to-date 	<ul style="list-style-type: none"> Winning contracts beyond Israel provides <u>further reference sites</u> to support SABRE 2 in 2017, expected to yield <u>larger contracts & higher margin</u> sales
<ul style="list-style-type: none"> SABRE 2 market-ready by Q4 – production line upgraded, prototype built, starting testing Continue new product development – SUBRE, EBR – on track 	<ul style="list-style-type: none"> Next generation product serves <u>markets exceeding A\$2.5B</u> at <u>anticipated higher margins</u>.
<ul style="list-style-type: none"> Establish China business model for SABRE solutions and appoint a China business partner by Q4 – China tour April 25 – May 9, partner selection in progress, 1st pipeline projects 	<ul style="list-style-type: none"> Potential Chinese partners indicate <u>substantial market opportunity</u> for distributed treatment – many villages & small towns. A partner helps <u>expedite SABRE roll out</u>
<ul style="list-style-type: none"> Develop a business model to sell water by Q4 – BUSINESS MODEL DONE, partner selection in process, 1st pipeline project Build pipeline via key trade shows – 1st China, Australia & sale-of-water projects in pipeline 	<ul style="list-style-type: none"> Emefcy's low-cost solution enables a <u>recurring revenue model by selling recycled water for irrigation</u>, replacing high-cost water and wastewater treatment
<ul style="list-style-type: none"> Establish a relationship with a North American capital markets communication advisor in Q1 - ACHIEVED Make key hires – Ahead of hiring plan Secure non-dilutive financing 	<ul style="list-style-type: none"> Assists Emefcy to <u>reach strategic investors</u> & communicate with investors Enables us to hit plan Minimizes shareholder dilution

Caesarea, Israel – First Resort Deployment

Flawless Operation Since Sept 2014 (20 months)



SABRE: Current small-scale version has potential for upgrade to 200,000 litres/day



Once health permits received, recycled water can be used to irrigate this golf course

50% lower OPEX in 1 year trial

90% less energy

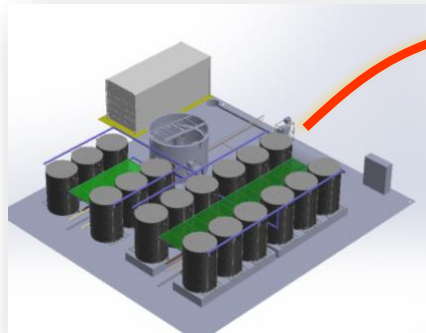
Estimated 2.1 year CAPEX payback

Quiet, odourless

Ha-Yogev, Israel: First Municipal Deployment Modules Installed, Target Full Operation June 2016



Production line in operation



Plant design



Plant location



All modules installed

- Booking value to Emefcy A\$380K
- SABRE plant will treat 125,000 litres/day
- Recycled water used for agricultural irrigation
- Successful commissioning helps drive municipal reference sales – many such off-grid communities worldwide
- Site construction, module installation complete – final site work in progress, testing to begin soon



Final construction steps in progress

St. Thomas, US Virgin Islands: First International Municipal Deployment



- ▶ Booking value to Emefcy A\$240K
- ▶ SABRE plant will treat 95,000 litres/day
- ▶ **EMC won public tender:** Low energy use & neighborhood-friendly design were key
- ▶ **USVI is covered by US EPA** (environmental protection agency) proxy for all important US market
- ▶ Successful commissioning brings local reference site for Caribbean & the Americas
- ▶ Modules manufactured, site in design
- ▶ Target to commission plant by end of 2016



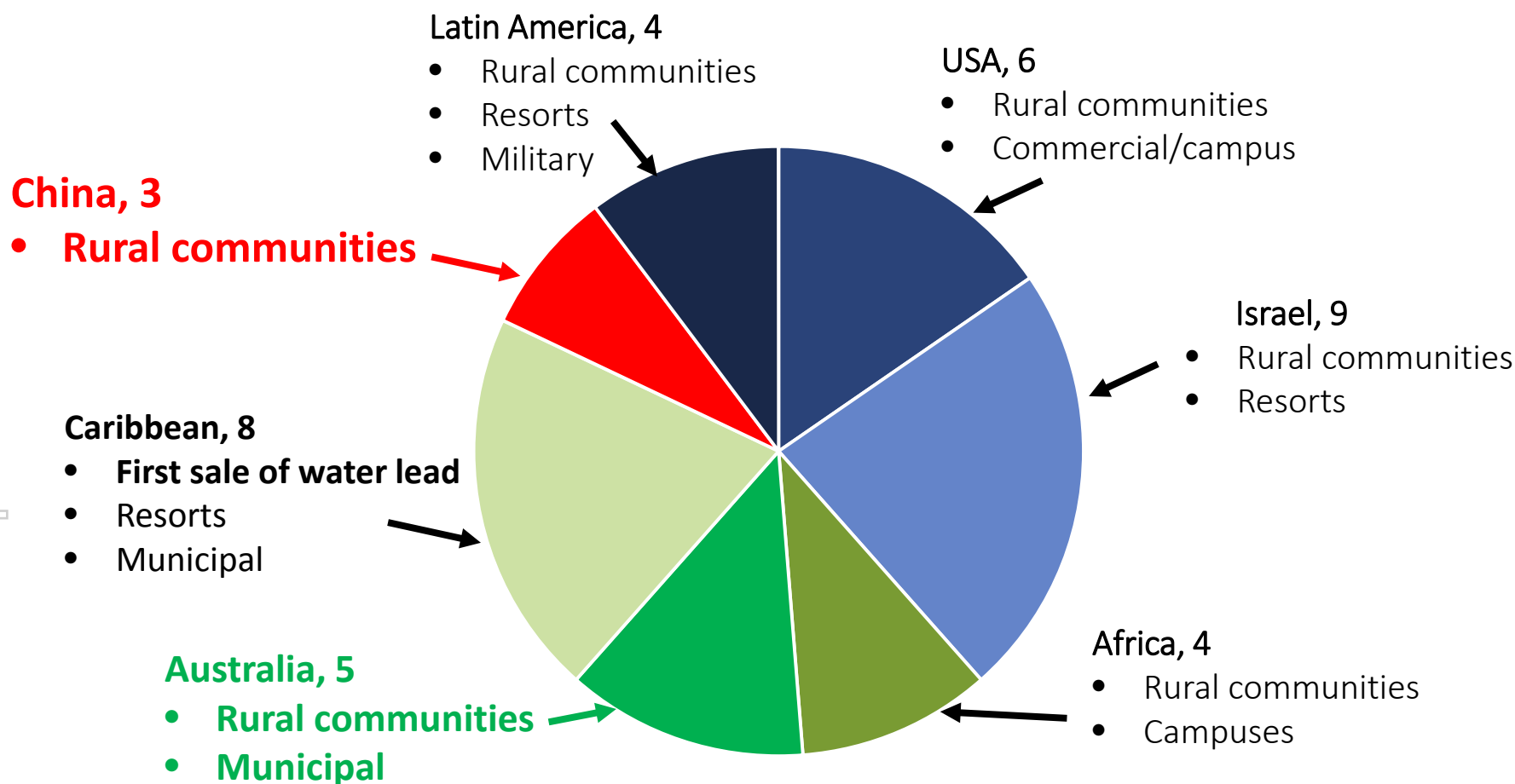
St Thomas



Current Sales Pipeline:

39 Projects, Potential A\$15M Contract Value

First Opportunities Qualified in China & Australia

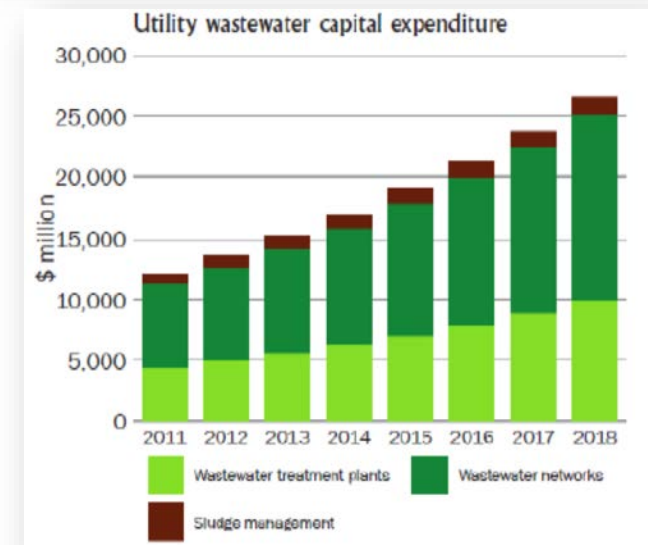


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China: Huge Market Opportunity



- ▶ China's new 5 year plan (2016-2020) requires massive investment to reduce water pollution (over 100,000 communities in need of waste water treatment)
- ▶ Emefcy solution is relevant to 30 - 40,000 new decentralized wastewater treatment plants
- ▶ Emefcy's products planned to be adapted to the Chinese market, using local raw materials and practices
- ▶ Many eager Chinese partners
- ▶ China requires deeper partnership, which may include local procurement and manufacturing



Executing Our China Strategy

Emefcy solution relevant to 40,000 communities



Step	Target Date
Setup corporate structure to protect IP, facilitate operation, and optimize transfer pricing	Now
Sign contract to establish initial manufacturing location	Sites under review
Sign initial regional distribution partner	Partner candidates identified
Secure full-scale, paid China demo plant(s)	Q4 2016
Successfully commission demo plant(s)	First half 2017
Establish additional distribution partnerships	Second half 2017

Selling Water Instead of Product



High Cost of Water & Wastewater:

Country	Average Combined Water + Wastewater Prices US\$/m3
United States*	\$6.28
Caribbean	\$5.50
Australia	\$6.43
Japan	\$2.63
Denmark	\$8.11
Norway	\$5.16
Sweden	\$3.00
Poland	\$3.01
Colombia	\$2.21
Czech Republic	\$3.25
Hungary	\$2.81
Croatia	\$2.47
Iceland	\$2.86

Desal is not the answer:

- Plants are costly, take long time to build
- \$2-3+/m3 water cost plus cost of wastewater treatment

Centralized reuse doesn't work:

- Purple pipe for recycled water costs \$1M or more per km

Today's distributed solutions are not economic:

- Increase cost in exchange for water security

Emefcy's solution is compelling:

- Marginal opex for SABRE plant: ~\$0.20/m3
- We save customers 30%+, avoid pipe & plant capex
- We provide attractive returns to financial partners
- MUCH more profitable for Emefcy than selling product
- Business model built & confirmed by potential partners

*Hawaii, Georgia, Oregon, Washington

Source: Global Water Intelligence, LADWP report

Executing Sale of Water Strategy



Step	Target Date
Validate business model with potential financial partners	DONE
Validate business model with potential customers	Resorts – DONE Municipal – Q3 2016
Sign terms sheet with selected financial partner	Q3 2016
Build sale of water sales pipeline of at least 10 projects	Q4 2016
Secure initial sale of water contract	Q4 2016
Implement internal organization to manage this business	Q4 2016
Sign contract with selected financial partner	Q4 2016
Sign first multi-unit sale of water contract	Q2 2017

Recent Activity



- Elite Los Angeles conference (“Davos West”)
- Invitation-only session - who’s who of government, business & finance addressing California water crisis
- Emefcy was the only company invited to present
- **Following up strong interest in water recycling opportunities in California**



- Leading forum for Hong Kong and China investor community
- **Emefcy only player with platform products suitable for China and the world**

ISRAEL-CALIFORNIA GREEN-TECH PARTNERSHIP

- Emefcy selected for White House/Israel-California Greentech Partnership to bring Israel's best water solutions to California
- **Helps drive significant California pipeline of potential opportunities**



- **Discussions with key materials & manufacturing partners to prepare for China market entry**

SABRE2 Is Coming: Higher Capacity, Higher Margin Product Supports Larger Contracts, Sale of Water & China



- ▶ Production line upgrade complete - enables SABRE2 and SUBRE manufacturing
- ▶ First SABRE2 module manufactured – testing begins shortly, on track for Q1 2017 launch
- ▶ Triples module water treatment capacity
- ▶ Increases plant capacity to A\$30M revenue p.a., product gross margin of plant output by over 2x
- ▶ Supports larger contracts

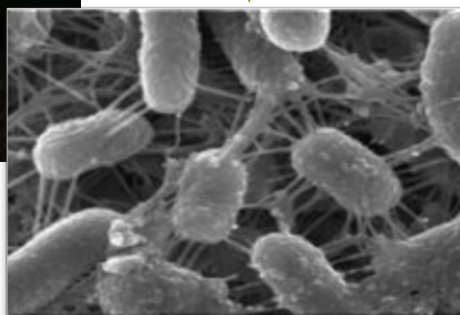


In Development: EBR (Electrogenic Bio Reactor)

Wastewater In → Treated Water + Electricity Out



Electrogenic Bio Reactor (EBR) is powered by Electrogenic bugs



Industrial wastewater = very high treatment costs

EBR is a unique, ZERO-OPEX solution that makes electricity from waste water while treating it

EBR builds on SABRE architecture & experience

**R&D target completion 2016
Field pilots estimated to launch in 2017
Commercial launch to access untapped estimated A\$2.7BN market in 2018**

Industry M&A At High Multiples: Up to 10x Revenues



A\$63BN in water M&A since 2005

A\$32BN of this in products & services

Top tier industry players are acquirers

Several repeat buyers

Companies acquirable once field-proven

Acquisition values up to 10x revenue



(4 M&A)



(12 M&A)



(9 M&A)



(5 M&A)



Early stage water tech companies acquired:

2011 - Inge bought by BASF for A\$145M with revenues of A\$15M

2014 - NanoH2O bought by LG Chem for A\$274M with under A\$14M of revenues

Summary



World class founders & investors with sector expertise, a proven track record of over \$2B capital raised and a combined \$7B in shareholder value created

Successful ASX fundraise of A\$13.8M joins blue chip investor base (A\$21M invested by GE Ventures, Pond Ventures, IC V, Plan B Ventures)

Existing & deploying plants prove in-field product performance & reliability

First international commercial project deploying now

A strategic pipeline of 39 projects including China, Australia and sale of water opportunities

Production facilities upgraded to support A\$30M production capacity at double gross margin

We bring unique advantages to an A\$8B addressable market

Strong arbitrage proposition enables recurring revenue by selling water

Strong economic incentive & value proposition for the customer (save or avoid capex, save opex)

Technology platform backed by strong IP base provides pipeline of products for broad markets and geographies

Key Contacts



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