

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



Richard Irving, Executive Chairman
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An aerial photograph showing a lush green golf course on the left, with several sand traps and winding paths. To the right of the golf course is a wide, dry riverbed filled with light-colored sand and gravel. The background features a vast, flat desert valley with distant mountains under a clear blue sky. A dark blue rectangular box is overlaid on the right side of the image, containing white text.

Emefcy offers a commercially ready wastewater treatment solution potentially disrupting the economics of large existing markets while addressing a growing global need for clean water

Corporate Overview



Capital Structure¹

Exchange Listing Details	Exchange	ASX: EMC
Ordinary Shares on Issue ²	No.	177,437,410
Share Price (as at 2 Feb 16)	A\$/share	0.22
Market Capitalisation	US\$m	28.0
Redeemable Note Outstanding ³	US\$m	2.0
Cash (as at 31 Dec 15)	US\$m	8.5
Enterprise Value	US\$m	21.5
52 Week High	A\$/share	0.28
52 Week Low	A\$/share	0.18

Top Shareholders

Holder	Shares Held	% of IC
Pond Venture Nominees III Limited	21,629,388	12.2%
Plan B Ventures I LLC and Plan B Ventures II LLC	12,032,371	6.8%
Bori Liberman (BHL Pension Pty Ltd)	10,108,295	5.7%
Israel Cleantech Ventures	8,262,712	4.7%
Total	52,032,766	29.3%

Notes:

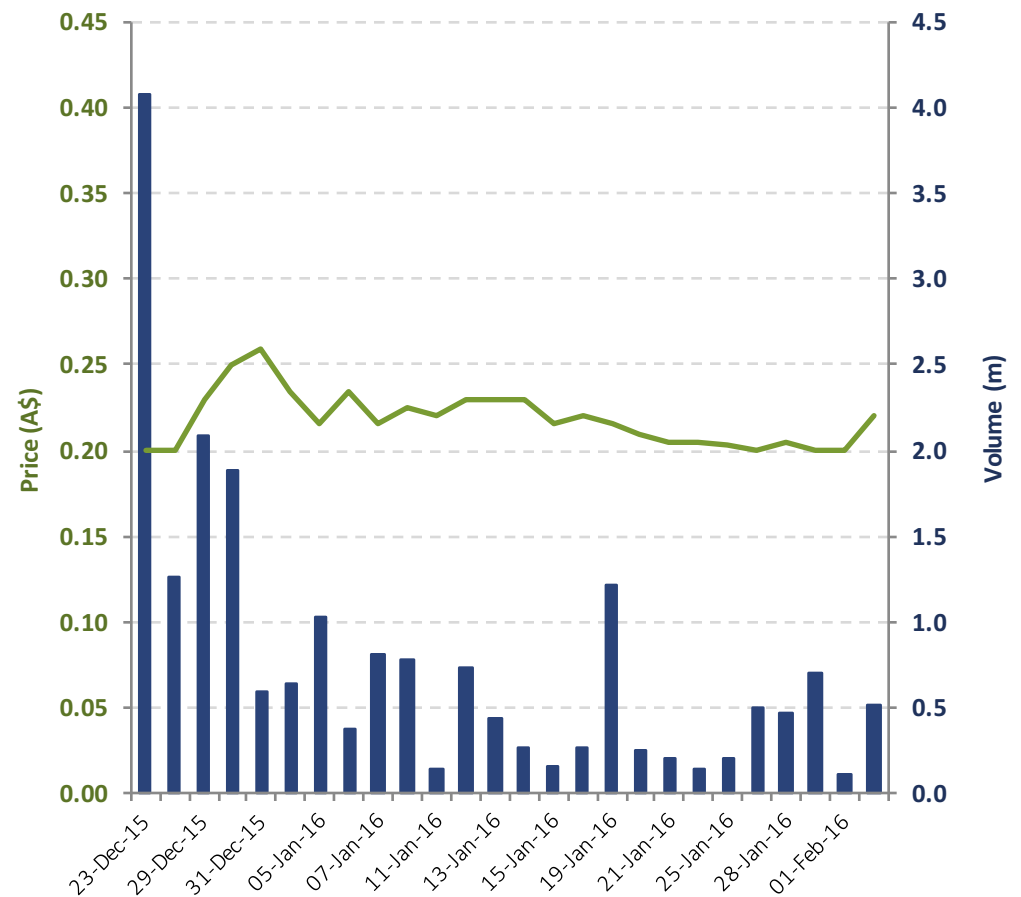
1. Assumes AUD:USD exchange rate of 0.7175.

2. Excludes 45,000,000 shares to be issued to the Emefcy vendors subject to the satisfaction of certain commercial milestones. Excludes options outstanding.

3. Redeemable Note to True North Venture Partners L.P in the event certain commercial milestones are met. Issued as consideration for the sale of their equity interest in Emefcy. Non-convertible interest free note.

Source: Bloomberg as at February 3rd 2016. Company Announcements.

Share Price Performance



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Our Vision



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 This



Small, distributed wastewater treatment plant:

- Small, 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** means short pipe network

Investment Highlights



- ✓ Market ready product (SABRE) with initial revenues targeted for Q1 CY16
- ✓ Pipeline of potential projects estimated at A\$13m with 40 projects in North America, the Caribbean, Latin America, Australia, Europe, Africa and Israel
- ✓ Production facilities in place to support A\$25m/year in SABRE sales
- ✓ First commercial demo plant in operation for 17 months proving in-field product reliability
- ✓ Global wastewater investment predicted to reach US\$93bn in the 40 most robust markets by 2016*
- ✓ Existing cornerstone investor base, including major venture funds Pond Ventures, Israeli Cleantech Ventures and Plan B Ventures, & major corporate investor, GE Ventures, which together with government funds contributed over A\$21m prior to Emefcy's ASX listing
- ✓ Experienced and successful management team with a strong track record in the global water technology industry
- ✓ Strong balance sheet with US\$8.5m in cash as at 31 Dec 2015

*Source: United Nations, UNESCO, Goldman Sachs

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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 Haghghat

- Managing Partner Newburyport Partners
- Founded nine 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 (US & Aus)

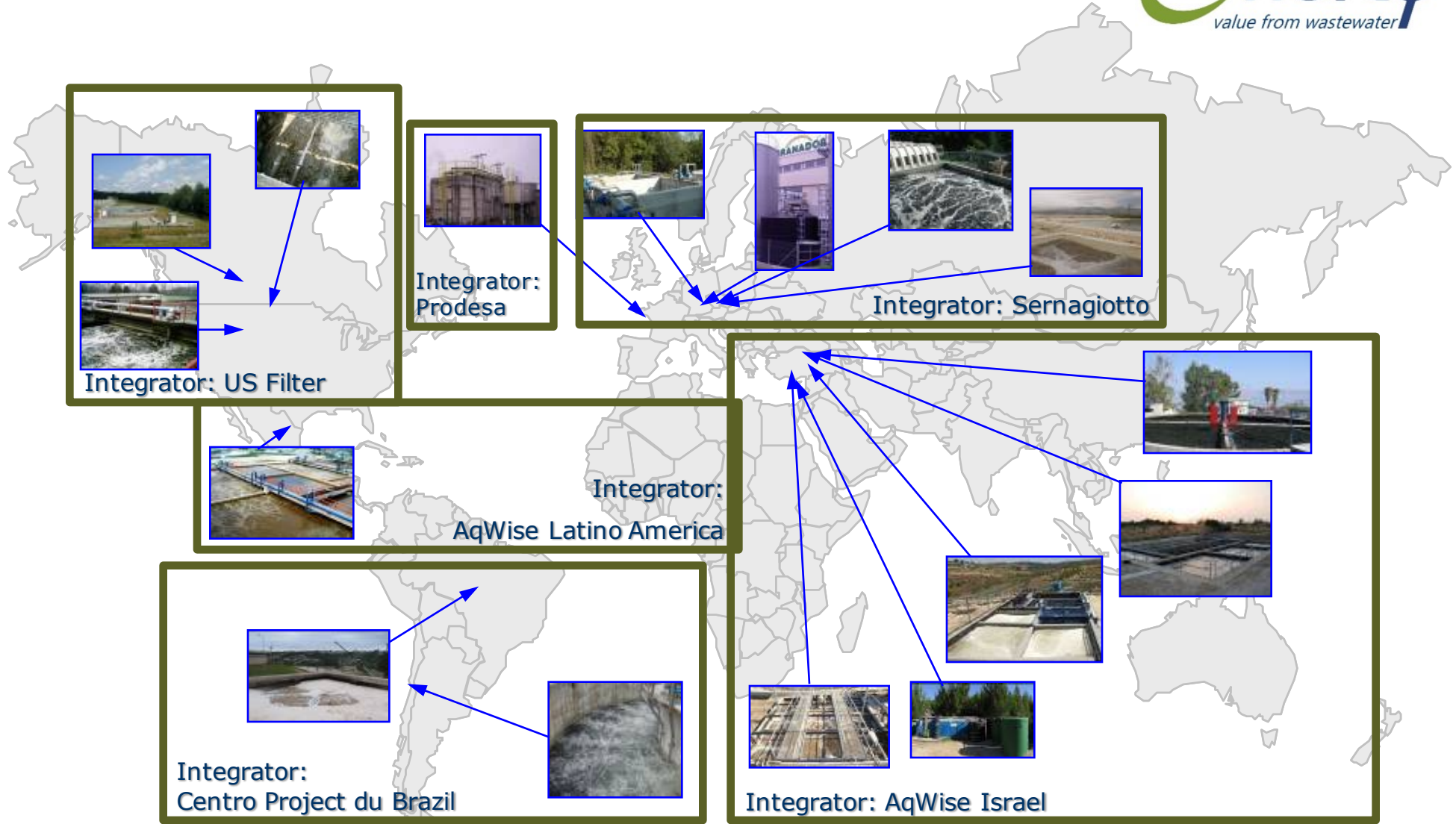


Peter Marks

- 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

Emefcy CEO & CTO Also Founded AqWise:

Now has 350 Installations in >30 Countries



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How Emefcy Transforms Wastewater Treatment



Commercial-
Stage
Wastewater
Treatment
Solutions for a
Rapidly Growing
Global Market

First commercial demo plant operating for 17 months

First full-scale municipal contract deploying in Q1 2016

50% lower opex via 90% lower energy vs current solutions

Lower, just-in-time capex with fast payback

Highly automated - serves centralised & decentralised plants

Low-cost, local source of recycled water

Manufacturing facility in place to support sales through 2018

Phase I (Now) – Resorts & Golf Course Operators – enables reference sell to larger customers

Phase II (From 2016/17) – Full size range of municipal and private wastewater treatment plants

Phase III (2018 and beyond) – EBR: Zero-opex solution for industrial wastewater

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Emefcy Products



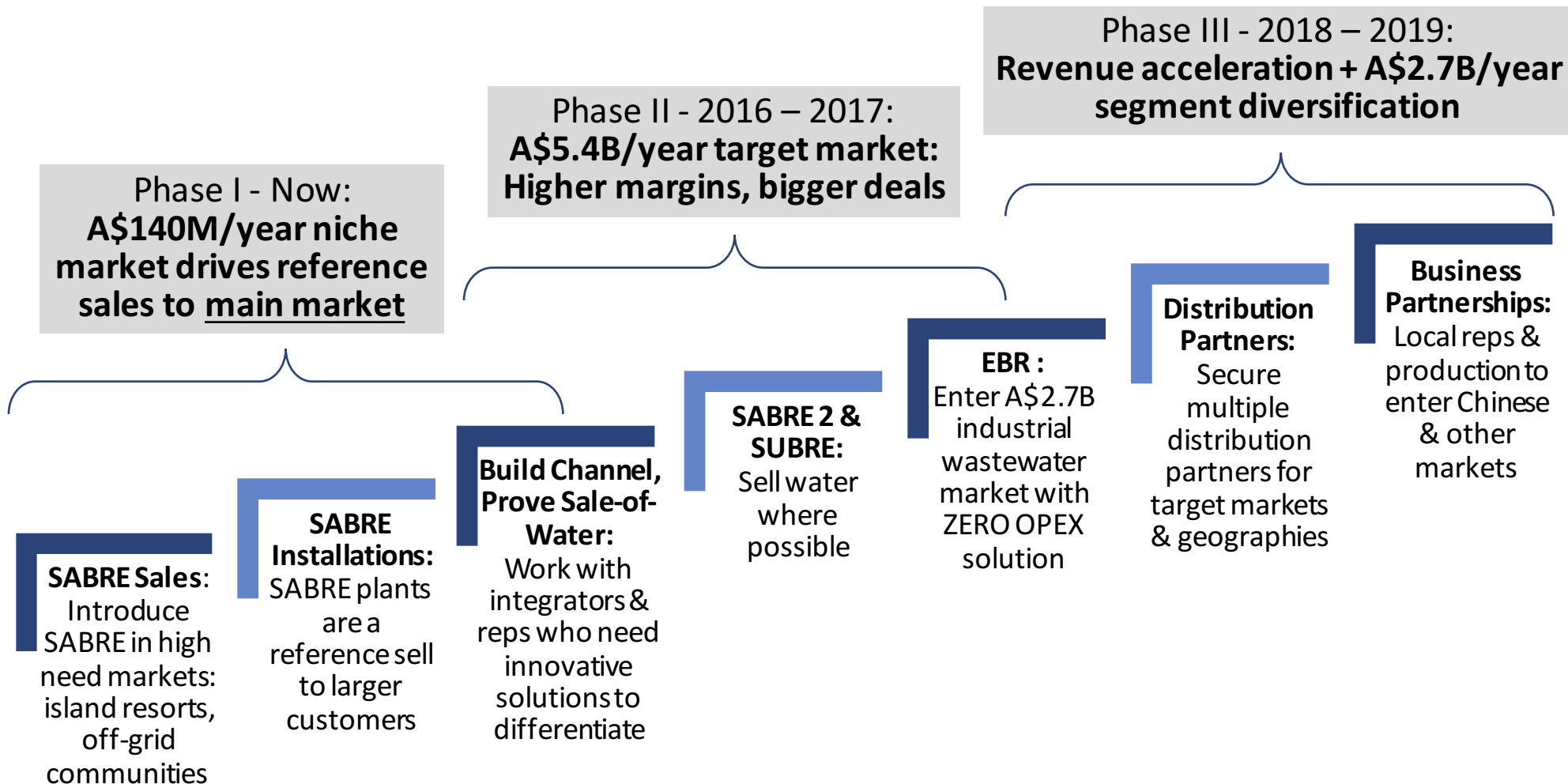
Target Markets	Wastewater aeration equipment for municipal and industrial customers
Channel	Direct or through system integrators and manufacturer's reps

Products	Price Range (Product Sales)	Launch Date
SABRE	A\$140,000 – A\$550,000	2015
SABRE2	A\$685,000 – A\$1,300,000	2017
SUBRE	A\$1,300,000+	2018
EBR	A\$2,700,000+	2018

Product	Target Customers
SABRE	Stage 1: Resorts & golf courses requiring irrigation Stage 2: Small municipal plants seeking effective low capex & low opex solution
SABRE2	Midsize municipal wastewater treatment plants
SUBRE	Mid-to-large size wastewater treatment plants – retrofit sale to lower opex
EBR	Food & beverage and pharmaceutical plants requiring industrial wastewater treatment

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Emefcy Target: Market Segment Leadership By 2020



*Target market size estimates based on company analysis of Global Water Intelligence data

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2016 Goals Prepare For 2020 Target of Market Leadership



Goal	Why This Matters
<ul style="list-style-type: none"> • First revenue from Ha-Yogev project in Q1 2016 • Complete 1st municipal deployment by end of June 2016 	<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 • Achieve cumulative signed contracts of A\$1M in 2016 	<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 sales</u>
<ul style="list-style-type: none"> • SABRE 2 market-ready by Q4 • Continue new product development – SUBRE, EBR 	<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 a China business model for SABRE technology solutions and appoint a China business partner by Q4 	<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 supply water ready for implementation by Q4 • Build pipeline via key trade shows 	<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 • Make key hires • Secure non-dilutive financing 	<ul style="list-style-type: none"> • Assists Emefcy to <u>reach strategic investors & communicate with investors</u> • Enables us to hit plan • Minimizes shareholder dilution

Caesaria – First Resort Deployment

Flawless Operation Since Sept 2014



SABRE: Current small-scale version has potential for upgrade to 200 m³/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

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Ha-Yogev: First Municipal Deployment

Target Full Operation By End Q2 2016



Production line in operation



Manufactured spirals await testing



Finished modules ready to ship to site

- ▶ Booking value to Emefcy A\$380K
- ▶ Successful commissioning helps drive municipal reference sales – many such off-grid communities worldwide
- ▶ Modules have been manufactured, ready to ship to site
- ▶ Site construction in progress



Illustration of Emefcy plant at Ha-Yogev, Israel

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Key Regions & Use Cases For SABRE



Key Regions	
Region	Why It's Important
Israel	Our local market covers all use cases: municipal and resort, water reuse – success here has global PR impact
Caribbean & other subtropical islands	Water scarcity, very high electricity costs & year round tourism make SABRE's low-cost water reuse capability very appealing
N America	Tight nitrogen requirements make SABRE appealing in communities near ocean
Europe	Many smaller, noncompliant plants need replacing in Italy, Spain, France, Greece
Latin America & Africa	Developing economies with badly polluted groundwater & many rural communities need cost-effective, distributed solutions like SABRE
China	Likely the largest market in the world – new 5 year plan emphasizes wastewater treatment in smaller towns & villages: will take time to enter successfully

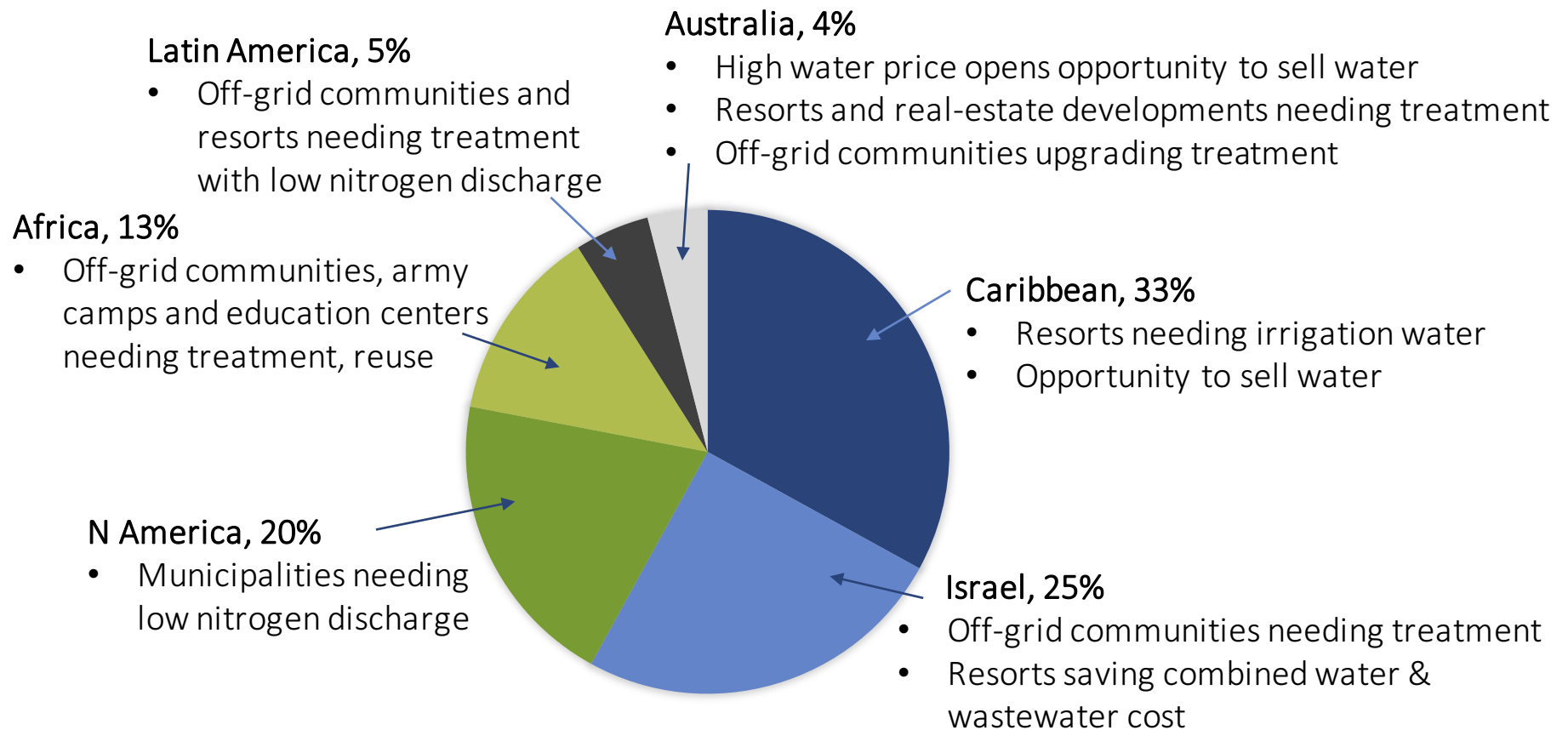
Key Use Cases To Prove

Resorts needing water – off-grid communities – customers who'll buy water versus plant

Current Sales Pipeline:

Over 40 Projects, Potential A\$13M Contract Value

Focus On Fast Movers Needing 2016 Solution



Note: Pipeline of projects by potential contract value

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Moving Pipeline To Closed Contracts



Year	Main Product For Sale	Estimated Contract Value To Emefcy
2016	SABRE	A\$140,000 – A\$550,000
2017	SABRE2	A\$685,000 – A\$1,300,000

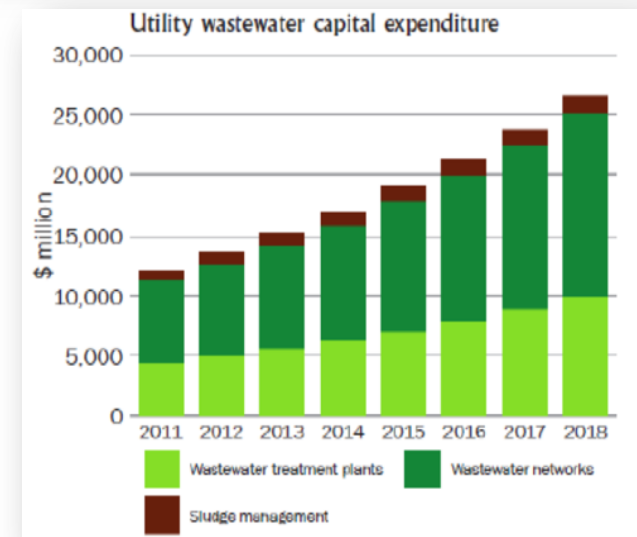
- ▶ Focus on potential projects needing 2016 solution
- ▶ Critical to gain 1st win in each important geography – local references important for future sales
- ▶ Important: win contracts proving new use cases – already have resort & municipal off-grid/reuse, need more & larger contracts, & prove sale of water
- ▶ Work with local system integrators to win early product sales
- ▶ Direct sale via key local reps when selling water planned for 2017

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China: Huge Opportunity Requires Careful Preparation Before Entry



- ▶ China's new 5 year plan 2016-2020 requires massive investment to reduce water pollution
- ▶ They need 30 - 40,000 new decentralized wastewater treatment plants
- ▶ Emefcy's products will be adapted to the Chinese market, using local raw materials and practices
- ▶ Many eager Chinese partners – need to select carefully
- ▶ China requires deeper partnership, which may include local procurement and manufacturing
- ▶ Plan: start partner selection in Q1 & cement a partnership by second half of next year
- ▶ Enter China market once product & partners are ready



Selling Water Instead of Product



High Cost of Water & Wastewater:

Country	Average Combined Water + Wastewater Prices US\$/m3
United States*	\$6.28
Japan	\$2.63
Australia	\$6.43
Sweden	\$3.00
Poland	\$3.01
Norway	\$5.16
Colombia	\$2.21
Denmark	\$8.11
Czech Republic	\$3.25
Hungary	\$2.81
Croatia	\$2.47
Iceland	\$2.86
Namibia	\$2.12

*Hawaii, Georgia, Oregon, Washington

Source: Global Water Intelligence, LADWP report

Desal is not the best answer:

- Carlsbad CA Plant \$1B in capex, 16 years in process, \$1.83/m3 cost

Centralized reuse doesn't work – little distribution:

- Los Angeles recycles 121,000 m3/day of wastewater
- Due to lack of purple pipe, 2/3 goes to environment (mainly lakes)
- Remaining 40,000 m3/day to only 40 customers (parks & golf courses)

Marginal opex for SABRE plant: \$0.20/m3

- Selling water as a service from distributed SABRE plants is a great solution – easily reused, high arbitrage value
- 10 year NPV profit from sale of water (SABRE2) beats sale of product in many scenarios - business modeling & partner discussions in process for 2017 implementation

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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**

Achieving Targets Helps Drive Value



Target	2015	2016				2017				2018		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
First commercial contract (SABRE)	✓											
First revenue		◆										
First commercial installation (SABRE)			◆									
First international contract					◆	◆						
Additional commercial contract					◆	◆						
Cumulative A\$1M in contracts					◆							
First international installation					◆	◆						
SABRE2 field pilot starts						◆	◆	◆				
SUBRE field pilot starts							◆	◆	◆			
First commercial SABRE2 contract								◆	◆	◆		
First commercial SUBRE contract									◆	◆	◆	
First commercial EBR contract										◆	◆	◆

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◆ Per Oct 2015 update
◆ New/updated

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



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 \$7 B 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)

First commercial pilot in operation for 17 months with proven in-field product reliability

First commercial project deploying in Q1 2016

A strong pipeline of 40+ projects. Six major regions covering most use cases, some need 2016 solution

Production facilities to support A\$25M capacity in place

We bring unique advantages to an A\$8B addressable market within the A\$263B products and services space

Strong arbitrage proposition enables recurring revenue by selling water

Strong economic incentive & value proposition for the customer (50% opex reduction, ~2 Yr capex payback)

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