



COMPANY

PRESENTATION



	HYDROLITE AT GLANCE	
	2016	Founded in Israel Fully owned subsidiary of Elbit Systems
ruel con Valuators Voltage	17	Team members including 6 with Ph.D. degree
	45	Million USD investment over 12 years of development (\$10M –in grants and public funded projects)
	67	Patents (50 granted) with more in the pipeline
	1200	Square meters of scientific labs with state-of-the-art testing and analytic equipment for device development
© 2020 BY HYDROLITE HYDROLITE PROPRIETARY		/// POWERING SUSTAINABLE SOCIETY 2



A multi-disciplinary talented and innovative LEADERSHIP TEAM



Ph.D. Ervin Tal Gutelmacher CEO

Ph.D. in Materials Science and Engineering; 20 years' of experience in industrial R&D management and development of novel energy materials, hydrogen, electrochemical devices and energy systems; R&D manager at Elbit Energy Systems 2010-2016; Junior Prof. at University of Gottingen (DE) 2006-2010; Tens of patents, hundred of publications and numerous awards



Ph.D. Miles Page CTO

Ph.D. in Chemistry; 15 years of experience in industrial electrochemistry, including 11 years in fuel cells development; R&D fuel-cell team leader at Cellera and Elbit Energy Systems 2009-2016; Acknowledged technical expert and inventor of numerous patents in AEM-FC technology



Ph.D. Tomer Yehoshua Business Development Manager

Ph.D. in Economics, trained by McKinsey & Company as a Business Analyst (OJT); over 15 years of experience as senior Economist and Financial Business Analyst in a variety of leading positions, with the latter one, as the Head of Budget and Economics Department, at the Israeli MOD; LTC (ret.)



Ph.D. Shimshon Gottesfeld Scientific Advisor & Cellera Founder

World-acclaimed fuel cell expert and pioneer; over 30 FC patents; Winner of Grove Medal & Olin Palladium ECS award; Leader of fuel cell group at Los Alamos National Lab (US) 1987-2000; Co-Founder of Cellera 2008-2014



Ph.D. Alina Amel MEA Materials R&D Manager

Ph.D. in Materials Science and Engineering (Technion); 7 years of experience in fuel cells materials, including 5 years of leading the research on AEM materials development



Ph.D. Azra Charly Stack Devices R&D Manager

Ph.D. in Materials Science (EPFL-Lausanne, Switzerland); 10 years of experience in materials and polymers research, including 6 years of leading the research on AEM stack devices



Jacob Jacobi Engineering & Infrastructure Manager

25 years' engineering experience in multiple fields; M.Sc. in Mechanical Engineering from California State University CA) and an MBA from the Keller Graduate School of Management (Chicago, IL)





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High-Performance Devices

High efficiency , dynamic behavior, fast start up



Low-Cost Technology

Low Pt, aluminum Plates, low-cost Membrane and Ionomer

Our disruptive approach

Alkaline membrane Fuel Cell and Electrolyzer devices









Our AEM Fuel Cell – high performance, low cost





The market - Fuel Cell for Stationary backup application





Fuel cell Roadmap to market









Our AEM Electrolyzer – high performance, low cost





The potential: Green H₂ demand will increase significantly





The expected increase in renewable energy will require efficient storage solutions



• Wind and solar will generate 58% of energy by 2050. ○ Investment (2050) – USD 9.5 trillion (wind & solar).

> About 15% of the solar energy is not used due to the differences in demand and supply times





H₂ is the only viable approach to store electrical energy >10 GWh for Days/Weeks

Segmentation of electrical energy storage



Large scale storage can only be addressed by Pumped Hydro, Compressed Air (CAES) and chemical storage media like hydrogen and methane

The potential to extend pumped hydro capacities is very limited

CAES has limitations in operational flexibility and capacity



Projected hydrogen investment through 2030 USD bn



Projects in press announcements or preliminary study stage. Also includes required investment to reach national targets and government funding pledges Projects that are at the feasibility study or front-end engineering and design stage Projects where a final investment decision (FID) has been taken, under construction, commissioned and operational

Hydrogen Insights

A perspective on hydrogen investment, market development and cost competitiveness February 2021 McKinsey

& Company

Council



Electrolyzer Roadmap to market







A multidisciplinary talented and innovative cohesive team with over 12 years of R&D experience



67 patents that cover the whole domain



State of the art advanced laboratory in Israel

Owned by Elbit **Systems** a wellestablished engineering tradition with a strong presence Worldwide



Series B is now active

HYDROLITE is searching for **Investors**

with an established clear long-term vision towards the hydrogen economy and looking generation for next of hydrogen

technology





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