



2021 Review

One of the main challenges reaching Net-Zero by 2050, is the decarbonization of heat.

January 2022



Avi Brenmiller on 2021:

A remarkable and dramatic year for the company. We've partnered with several of the largest tier-1 customers in the world. Our technology is one of the first to receive global recognition for serving the world's emission reduction targets, and a leader in the thermal storage segment.

In the following presentation, you will notice we are using mostly live, on-site pictures. This is our main achievement for 2021 – from dream to reality.

Projects that we developed, designed and engineered for a very long time are being commissioned. These are groundbreaking energy plants in the US, Israel, Brazil and Italy.

The EU is supporting our mission and financing our company and projects. This reflects their confidence and recognition in our solutions for decarbonization.

In the US, we've partnered with EPRI and NYPA to conduct a feasibility work for integrating our technology in thermal power plant. Our consortium has received a grant from the US Department of Energy, as they see the importance of our technology for flexible generation.

Industrial companies like Phillip Morris and other multinationals targeting net-zero emissions are working with us to decarbonize their heat production.

Our company targets global utilities and industrial players, especially from the US and EU. Therefore, we see our anticipated listing to the Nasdaq as a step to attract global investors and support the fast growth of our company.

I believe we are on the path to become a leading global provider of thermal energy storage, enabling fast and vast decarbonization of some of the most polluting segments.

May we have a healthy and prosperous 2022,
Avi Brenmiller, Founder and CEO





2012

Founded

\$90M

Capital investments

70

Employees

Vision

Carbon-free thermal storage that enables renewable and clean energy in industrial, commercial, and power plants

OUR TEAM



Avi Brenmiller, Founder & CEO

Former CEO of Siemens CSP and Solel



Reinaldo Garcia
Advisory Board
Former CEO GE
Grid Services



Eli Lipman
VP R&D



Rami Ezer
VP Engineering



Avi Sasson
VP Operations



Ofir Zimmerman
CFO



Doron Brenmiller
EVP Business & Sales



Nir Brenmiller
EVP Operations & Finance



Gilad Walker
VP Projects

2021 Highlights

- 28m NIS Equity raise in Feb. 2021
- Filing for Dual listing at Nasdaq and Equity raise of \$15m (\$7.5m invested + \$7.5 post Nasdaq listing)
- Extension of stock options maturity date
- Signed EUR 7.5m credit line from EIB for manufacturing enhancements
- Mr. Reinaldo Garcia, former CEO of GE grid services, appointed Chief of Advisory Board



2021 Highlights

- Framework agreement negotiation with Phillip Morris international
- NIS 4m in grants approved by DOE, IIA, MOE
- Partners to receive \$7m grants for two projects in Hungary
- Grant funding from DOE for feasibility study with EPRI (Engineering Power Research Institute) and NYPA for integrating thermal storage in a combined cycle power plant
- Joint venture with Rani Zim for emission reduction projects in Israel



Technology

PATENTED



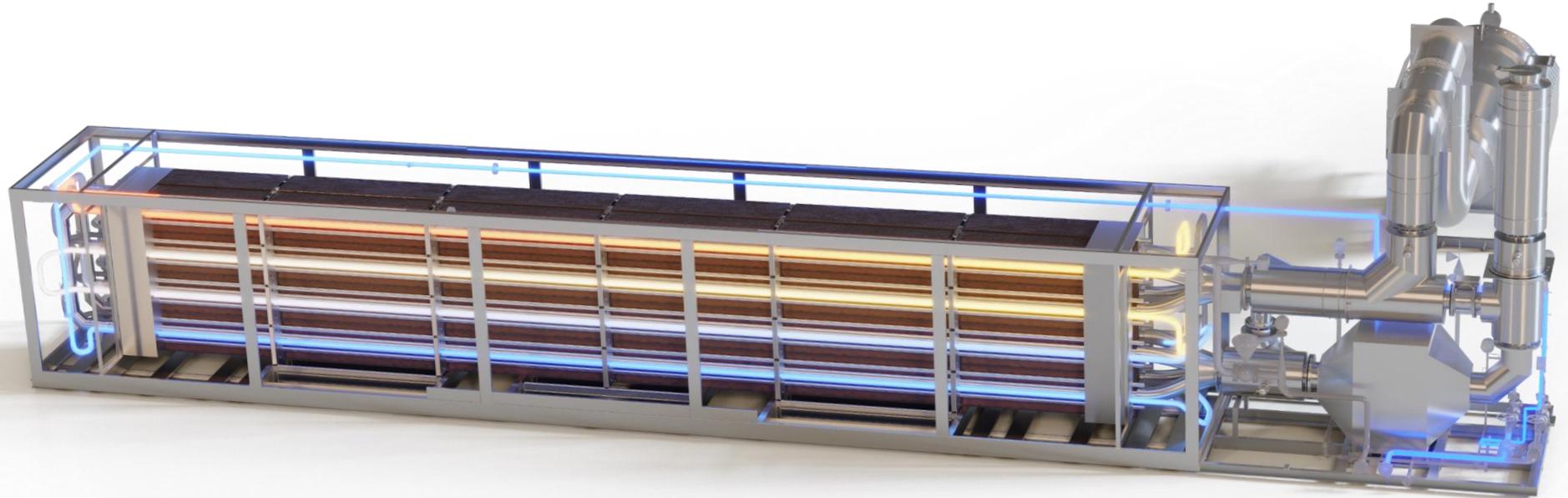
Thermal Storage



Heat Exchanger



Steam Generator



Clean



1MWh-1000MWh



30+ Years

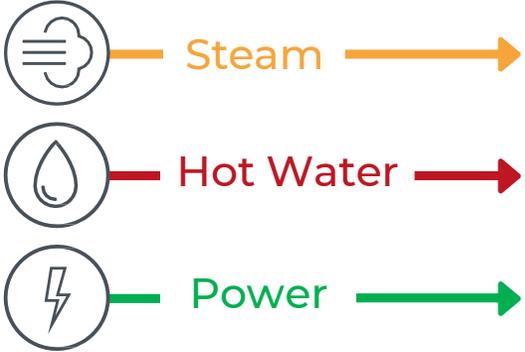
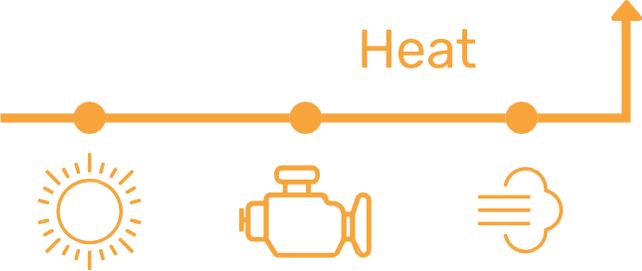
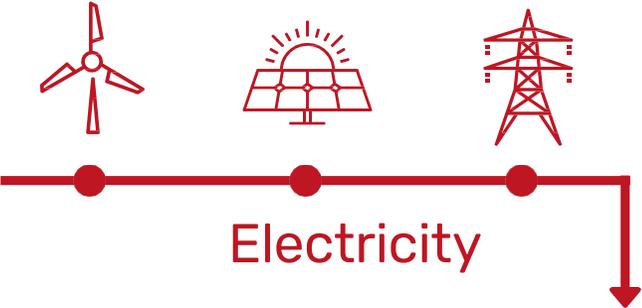


Unlimited cycles



Low-cost materials

How does it work?

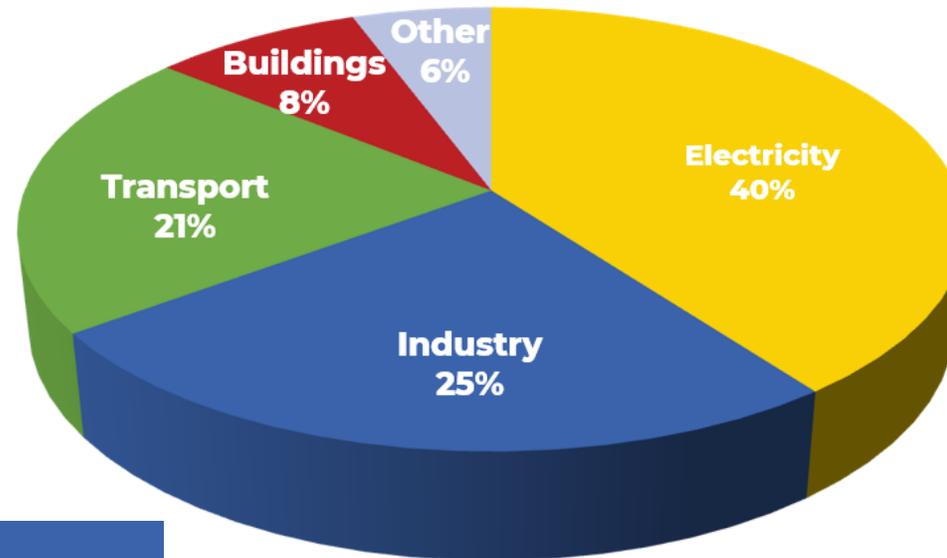


Markets

Focus on power and industry

Global CO₂ Emissions in 2020

2/3 of emissions generated from power and industrial facilities



Thermal Storage **for Power Plants**
Energy shifting and flexible operation

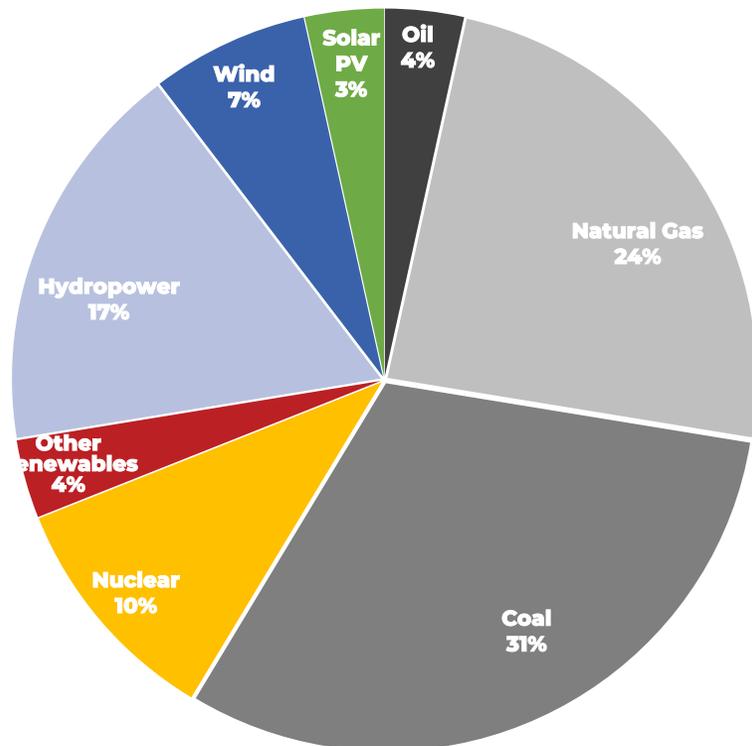
Thermal Storage **for Industry**
Coupled with renewables for clean heat

Markets

Thermal power plants

Most of the electricity in the world is produced from fossil fuels and will remain dominant for the next decades

Global fuel sources for electricity generation



Markets

Thermal storage for power plants

Thermal power plants must become more flexible and look for additional revenue streams to cope with massive penetration of renewable energy

Gas Power Plants

- Energy shifting
- Start-up time reduction
- Capacity payments, Frequency regulation and other revenue stacking

Coal Power Plants

Converting coal power plants to grid storage
while making use of existing infrastructure
(turbines, grid connection, real estate)



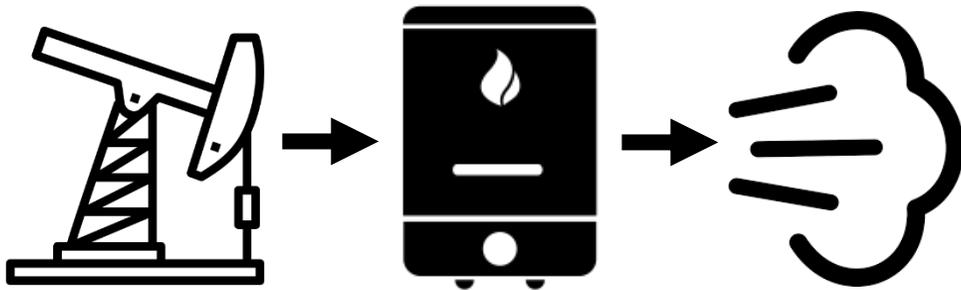
Markets

Decarbonizing Industrial heat

Thermal storage allows integrating renewables for heat generation

Traditional steam generation

fossil fuels are available, flexible and reliable



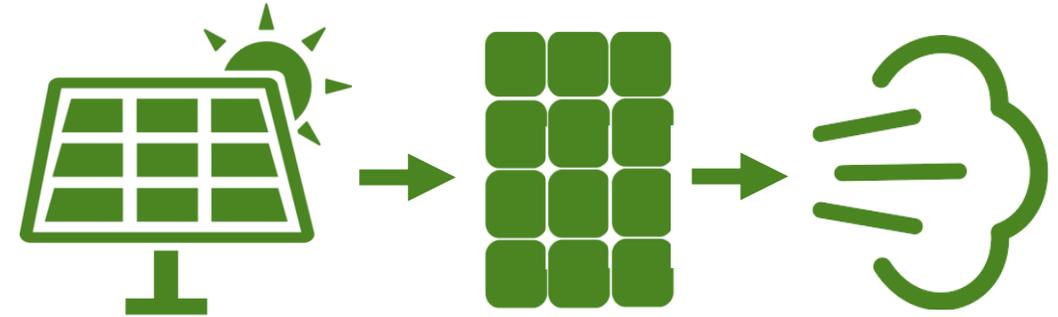
Fossil Fuel

Boiler

Steam

Clean steam generation

Renewables + storage allows flexible and stable operation



Renewables

Thermal Storage

Steam

Projects



24MWh thermal storage in combined cycle power plant

Allowing energy shifting and flexible operation of the power plant

- Completed manufacturing of storage modules. Shipping began
- Installation begins Q1/2022, Commissioning during Q2/2022
- After testing the system, ENEL will have the option to scale up



Projects



Thermal Storage based co-generation

Site installation is underway, commissioning during Q1/2022



Biomass based storage system

Site installation has finished, commissioning during Q1/2022



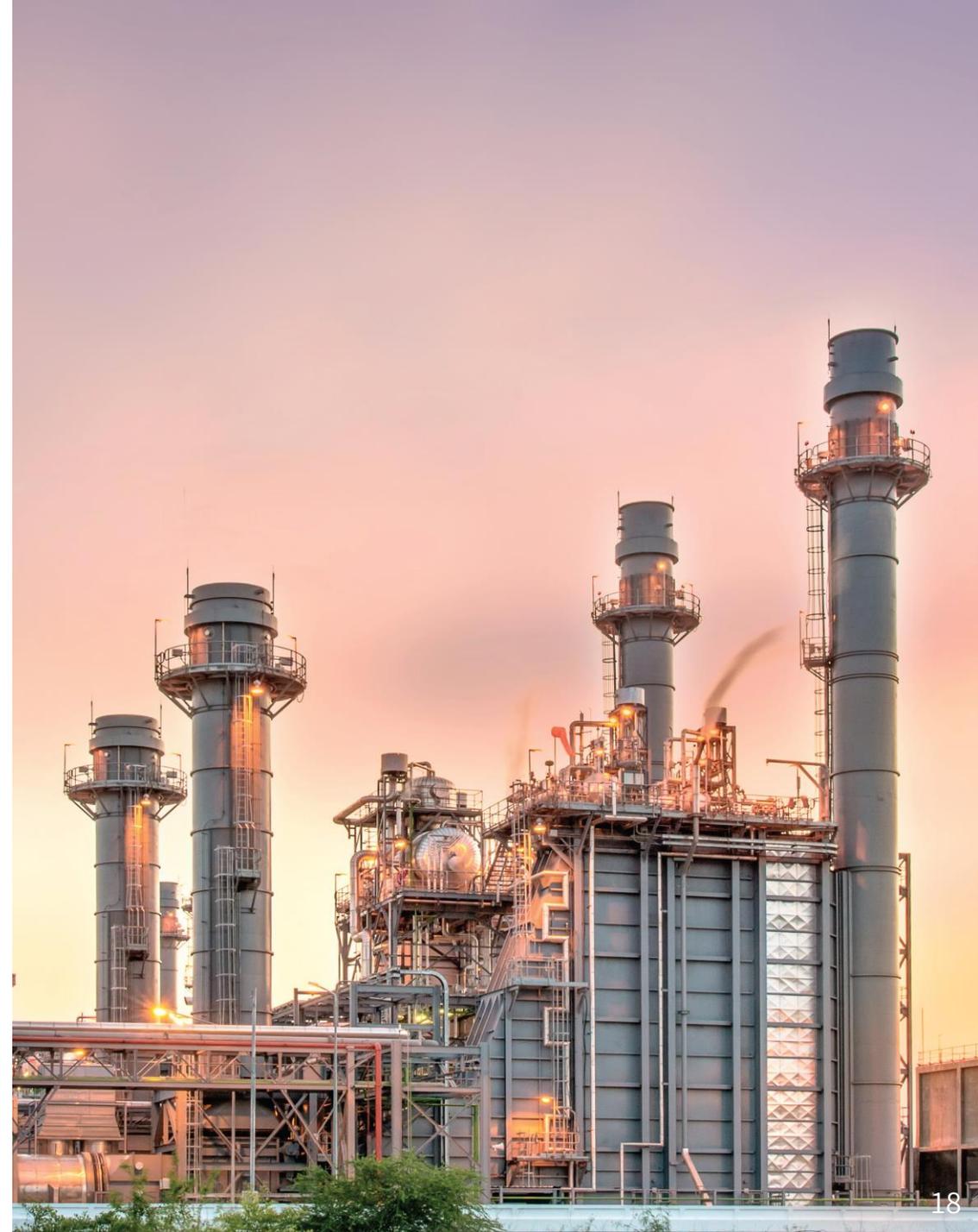
Pipeline



Two cogeneration projects in Hungary

Grid balancing services and waste heat recovery for steam generation

- EU modernization fund will collect €14 billion until 2030 from carbon tax
- Partner's awarded grants of \$7m for installation of thermal storage in two cogeneration plants
- Commercial terms and purchase order during 2022



Pipeline



PHILIP MORRIS
INTERNATIONAL

Biomass based thermal energy storage

Allowing flexible operation with continuous biomass combustion

- Framework agreement in negotiation
- First purchase order to be signed in 2022
- PMI has over 40 production sites globally



2022 Outlook

- Signing of framework agreement with Phillip Morris international (Expected Q1/22), and first project to deploy in PMI's facility in the EU
- Signing of two projects in Hungary using EU modernization fund grants
- Delivery of industrial projects in Brazil and the U.S
- Delivery of the ENEL project – world's first thermal storage for power plant
- Nasdaq listing
- Manufacturing plant enhancement



Thank you



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