

## Brenmiller Energy LTD – Update Report

30.03.2023



Stock Exchange  
**TASE**



Symbol  
**BNRG**



Sector  
**Technology**



Sub-sector  
**CleanTech**



Stock price target  
**NIS 12.1**



Closing price  
**NIS 3.2**



Market cap  
**NIS 57.3 Mn**



No. of shares  
**17.7 Mn**



Average Daily  
Trading Volume  
**149 stocks**



Stock Performance  
(Since Jan. 2022)  
**-33.19%**

Inaugurated new system of the company in Italy with the energy giant Enel; in the background, contracting agreements in various stages of establishment with additional companies with the expectation of expanding production capacity to 4,000 MWh by the end of 2023; On the other hand, mixed financial results for 2022 with revenues for the first time crossing the 1.5 million dollar threshold; price target is updated

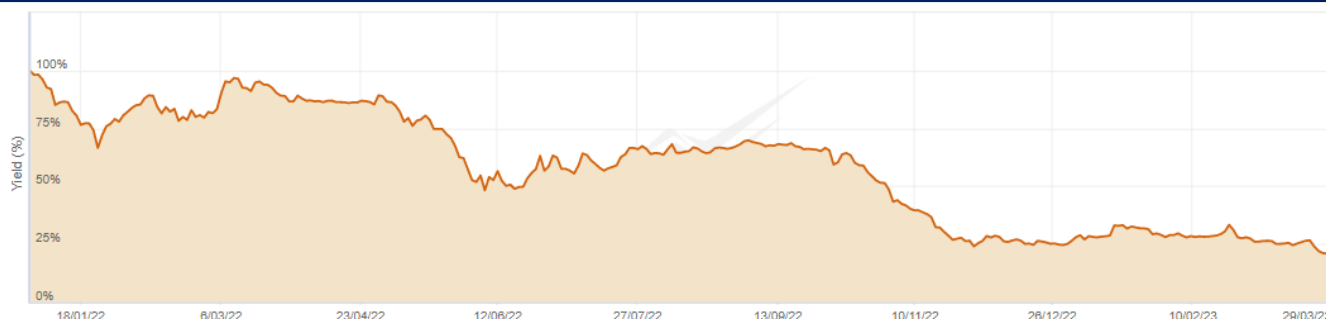
**Brenmiller Energy LTD (TASE: BNRG) is an Israeli publicly traded CleanTech company, founded in 2012. Brenmiller's core competence lies in materials engineering, high-temperature thermal effects and conductivity, product manufacturing, and renewable power production. The company pioneered a cost-effective and efficient thermal energy storage (TES) solution, which could predominantly assist the Commercial and Industrial sectors in fulfilling its decarbonization initiatives.**

**Q4 2022 highlights:**

- Inaugurated an innovative storage system in Italy that it designed and implemented with the global energy giants Enel.
- The company expects to expand its production capacity to 4,000 MWh by the end of Q4 2023 and has secured significant commercial orders in 2022.
- Mixed financial results for 2022, with first revenues from projects and an increase in net losses in light of the NASDAQ listing as well as an increase in marketing and R&D expenses. In the background, the company received significant commercial orders and expects future growth.

The TES global market is projected to **triple by 2030**, with capacity **exceeding 800 GWh**, as it becomes crucial for renewable energy penetration. Around **400 million tons of CO2 emissions** could be mitigated with proper energy storage. Over the next 30 years, **the EU plans to invest USD 370 billion in decarbonizing heavy industry sectors**. Carbon taxes and increasing carbon prices, as seen in the EU and Israel, positively impact the TES market and Brenmiller's potential. Since the beginning of 2021, EU carbon prices have risen from ~EUR 30 per ton of CO2 to ~EUR 98 per ton in August 2022. Moreover, the U.S. has approved a USD 1.3 trillion green energy infrastructure bill.

The company has achieved important milestones, including the installation of a TES system at an active power plant in Italy in partnership with Enel, a \$9.2 million agreement with Philip Morris Romania for a bGen TES system, and completion of a thermal storage-based co-generation station with NYPA. We see this growth as part of our forecast and await a significant change in the company's profit. Price target is updated mainly due to capital markets uncertainty and high rates.



### **Key events in Q4 2022:**

- On November 4, Brenmiller and Enel inaugurated "TES," an innovative rock-based storage system in Tuscany, Italy. The pilot is the result of the synergy between Enel and Brenmiller, which was implemented for the first time in the world at the Santa Barbara power plant in Tuscany, Italy.
- On November 29 and December 6, Brenmiller signed an agreement to purchase securities for a private placement of units, which includes 2,338,264 ordinary shares and 2,338,264 related warrants at a purchase price of 5.33 NIS per unit. The options are for a period of 5 years and the additional exercise is at the price of 6.13 NIS per share which represents a 15% premium on the established share price.
  - o The total consideration is about NIS 12.46 million, which Brenmiller plans to use for general corporate purposes.

### **2022 overview:**

- The company expects to meet the increasing demand for clean energy by expanding its production capacity to 4,000 MWh by the end of Q4 2023. This demonstrates the company's commitment to meet future demands for clean energy and its confidence in its ability to grow.
- Brenmiller achieved significant milestones in 2022, including partnering with Enel to install a 24 MWh TES system at an active power plant in Italy, securing a \$9.2 million agreement with Philip Morris Romania for a bGen TES system, and completing a 0.5 MWh thermal storage-based co-generation station with NYPA. The company also delivered a 1 MWh TES system with Fortlev in Brazil and signed an MOU with Green Enesys Deutschland GmbH and Viridi Energias Renovables Espana, S.L. to study incorporating bGen TES for green hydrogen production facilities in Spain.
- Management is optimistic about the year ahead, citing a robust pipeline and accelerating commercial momentum. This suggests that the company is poised for further growth and success in the future.
- The production facility in Dimona, Israel, currently under construction, is expected to have the capacity to produce up to 4,000 MWh of bGen thermal storage modules annually. This demonstrates the company's potential to meet growing demand for clean energy storage solutions.

### **2022 financial overview:**

- Brenmiller is facing a challenging financial position, despite a significant 284.8% revenue growth to USD 1.52 million (NIS 5.71 million) in 2022. The increase in revenue did not translate into profitability due to higher costs, leading to a net loss of USD 11.07 million (NIS 41.56 million) in 2022, a 7% growth from the previous year. Total assets decreased to USD 12.38 million (NIS 46.51 million) in 2022, a 15.2% reduction compared to 2021. In contrast, total liabilities increased by 6.1% to USD 9.72 million (NIS 36.51 million), while total equity decreased by 51% to USD 2.66 million (NIS 10.0 million), indicating a weakened financial position.
- Cash and cash equivalents decreased by USD 986 thousand (NIS 3.70 million) in 2022, a substantial decline compared to the net increase of USD 5.94 million in 2021. Additionally, net cash used for operating activities increased by 25.9% and cash inflows from financing activities were 26.2% lower compared to the previous year.

For further details on the company and its markets, please read our initiation of coverage report [here](#).

## Investment Thesis

Climate change has been the greatest challenge of our times, and the numbers of countries that have pledged to reduce carbon emissions to zero by 2050 continue to grow. **It is estimated that the European Union will invest an additional USD 370 billion in heavy industry sectors over the next thirty years in decarbonization of the industrial sector.** Meeting carbon emission reduction targets, requires a ban on fossil fuel boilers to give way for innovative replacements, installation of carbon capture, energy **storage systems, efficient recovery, and reuse of waste heat. Thermal energy storage (TES) becomes a default requirement for renewable energy penetration to ensure reliability of supply.**

TES is a technology that stores energy by heating or cooling a storage medium that could be later used for heating or cooling applications and power generation. Brenmiller Energy (TASE: BNRG) pioneered a cost-effective and efficient thermal energy storage solution that could largely assist the C&I (Commercial and Industrial) sector in fulfilling its decarbonization initiatives. Brenmiller Energy's mission is to provide innovative, cost-effective TES solutions to reduce the environmental impact by enabling intermittent renewable sources utilization for main stream industrial heat demands and recovering medium to high temperature wasted heat streams at the industrial floors.

Brenmiller's patented product bGen™ is a high-temperature thermal energy storage unit. It utilizes crushed rock as its storage media to store heat in its modular sub-units and convert it into superheated steam for electricity generation, saturated steam or hot air for industrial use, or hot water when required, offering a minimum of 3+ hours of energy storage. The system is the only solution to include all the functionalities of waste heat recovery, hybrid charging from thermal and electrical sources, and inherent steam generation in the same storage unit while producing steam on demand in a modular unit. The system is less expensive, highly efficient, and has a longer life span than other competing technologies.

**The main applications** for the company products are Electricity to Heat, Biomass to Heat, Waste Heat Recovery, Combined Cycle Gas Turbine plants, Electricity to Electricity. Its products have the capacity for heat input of up to 750°C and output heat of up to 550°C, capturing wasted process heat and converting it back to electricity or high-value process heat in the segments of food processing, pulp and paper, plastic industry and more. Next generations with higher temperatures capabilities will potentially address other sectors like steel, refineries, and others.

The strength of Brenmiller's strategy is in its position at the center of the value chain of the energy storage field, with its customers being large plants. In our opinion, the system is cheaper, more efficient, and has a longer lifespan than other competing technologies. The main risk is in the widespread adoption of the technology and sales ramp up.

**Therefore, we view Brenmiller as an excellent opportunity for those seeking to invest in sustainable and positively impact the environment.**

## Company Overview

### General

Founded in 2012, Brenmiller Energy (TASE: BNRG) pioneered a thermal energy storage solution that is cost-effective and efficient, which could predominantly assist the C&I (Commercial and Industrial) sector in fulfilling its decarbonization initiatives. The innovation patent has been granted in all major continents. Brenmiller's team of renewable energy experts is experienced in designing, building, and managing renewable solutions for power plants and industrial floors. It owns and operates a manufacturing and assembly line in Dimona, Israel. The company is headquartered in Rosh Ha'ayin, Israel, and consists of a team of 70 full-time employees in R&D, engineering, production, finance, and business. It has raised over US\$100 million since the IPO in 2017.

Brenmiller is working towards a sustainable future by supporting emissions reduction up to full carbon neutrality by providing innovative, cost-effective thermal energy storage solutions that enable intermittent renewable sources utilization for mainstream industrial heat demands and recovering medium to high temperature wasted heat streams at the industrial floors.

### Strategy



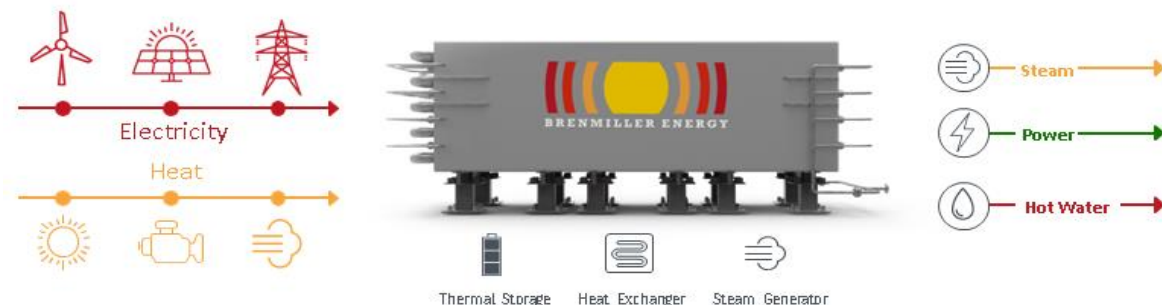
## Key Projects

Brenmiller's key projects include a 1 MWh Thermal Energy Storage (TES) plant with the Israel Defense Forces; a 1MWh TES plant in Fortlev, Brazil; a 400 KWh TES plant in the New York Port Authority; and a 23 MWh TES plant for the ENEL project.

## 2. Products Overview

### Brenmiller's bGen™ Thermal Energy Storage System

Brenmiller's patented bGen™ is a high-temperature thermal energy storage unit. It utilizes crushed rock as the storage media to store heat in its modular sub-units and converts it into superheated steam for electricity generation, saturated steam or hot air for industrial use, or hot water when required. It inherently combines a heat exchanger, a thermal storage, and a steam generator. In addition, the system holds an embedded conversion capability of electricity to heat which enables a hybrid charging. The result is an effective solution offering a minimum of 3+ hours of energy storage. Brenmiller's bGen™ requires minimal maintenance and offers the lowest Levelized Cost of Storage (LCOS) relative to other available technologies.



bGen™ requires minimal manpower in its operation. Its automatic control system regulates the power production process and the charge and discharge cycles of the thermal energy storage demand, tailored to the client's electricity demand. Its negative impact on the environment is minimal since it is designed to use non-hazardous materials and uses no chemicals, oils, or salts that could potentially cause environmental damage. Its main applications are converting electricity and biomass to heat, waste heat recovery, increasing the degree of flexibility available for Combined Cycle Gas Turbine plants, and cost-effective energy storage.



#### Clean

- Environmentally friendly materials (crushed rocks)
- 60% reduced CO<sub>2</sub> emissions



#### Modular

- From industrial to large scale power plants



#### Lifetime

- 30+ Years



#### Performance

- Unlimited cycles with minimal daily losses
- Energy on demand: Efficient managing of peak load and unload times



#### Hybrid

- Connects different energy sources



#### Economic

- Low investment at <€50/MWh
- 50% reduced operational cost

### 3. Technology Overview

TES is a technology that stores energy by heating or cooling a storage medium that can be later used for heating or cooling applications and power generation. TES has been proven to increase the overall efficiency, reliability, reduce capital expenses, and operating expenses, and lessen CO<sub>2</sub> emissions.

***High energy storage density and high power capacity are the desirable characteristics in TES systems.***

#### Leading Technologies Performance Comparison<sup>1</sup>

Technology	Storage Capacity
SHS	10-50 KWh/m <sup>3</sup>
PCMs	50-150 KWh/m <sup>3</sup>
TCS	120-250 KWh/m <sup>3</sup>

At present, TES based on Sensible Heat Storage (SHS) is commercially available, while TCS and Latent Heat storage (LHS) based on PCMs are in a lower technology readiness level. Brenmiller Energy's bGen™ system utilizes SHS technology and uses crushed rocks as its storage medium.

Brenmiller's system has an embedded steam generator, eliminating the need for external steam generators.

Other key advantages are:

- Hybrid charging (can be charged from both electrical and heat sources).
- The modular design allows to provide systems of various sizes to its clients.
- High storage density is achieved through its capability for high charging temperatures, as high as 750<sup>0</sup> C.
- Life span of 30+ years.
- Low cost per installed MWh and low maintenance costs.
- Fast startup time since the energy storage is always kept hot.

<sup>1</sup> Sarbu, I; Sebarchievici, C; A Comprehensive Review of Thermal Energy Storage, *Sustainability*, 2018

***Brenmiller Energy's bGen™ system utilizes SHS technology and uses crushed rocks as the storage medium. The system is the only solution to include all the functionalities of waste heat recovery, hybrid charging from thermal and electrical into the same storage unit, and producing steam on demand in a modular unit. The system is less expensive compared to other competing technologies and has a 30-year lifespan.***

## 4. Markets Overview

### Electrification of heat-based industrial processes to Reduce CO<sub>2</sub> Emissions

Globally, 40% of energy consumption in a nation is by the industrial sector, and approximately 21% or less is from electricity. 44% of the energy consumed by industries is fueled by coal, natural gas, or oil. Falling electricity prices driven by presents a major opportunity for decarbonization. Electrification of industries would require minimal changes either through retrofits or replacement of conventional equipment with electrical equipment. Some advantages of electrification are lower energy costs due to curtailment of renewables, subsidies from Governments, and the ability to charge customer with a premium for their sustainable practices. Hybrid setup with heat recovery and storage further lowers costs and improves process efficiencies.

The industrial Sector in the USA for instance, consumes 23% of the nation's primary energy use, and accounts for 28% of the CO<sub>2</sub> emissions. ***However, several industries reflect relatively low electrification ratio (electric to non-electric use) suggesting there is massive opportunity for electrification, which in turn might require a reliable thermal storage solution or waste heat recovery to optimize energy consumption or both.***

In addition to efficiency improvements, electrification provides several non-energy benefits like reduced waste, improved yield, quality, and safety. Other operational advantages include improved process speed, controllable heating, cleaner processing, and uniformity of the process environment.<sup>2</sup>

It is estimated that the European Union will invest an additional USD 370 billion in heavy industry sectors over the next thirty years on decarbonization of the industrial sector.

#### Boilers

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<sup>2</sup> Beneficial electrification in industry, American Council for energy efficiency economy (ACEEE), 2020



Boilers are used to make steam in energy-intensive industries. Industrial floors aim to transit towards replacing the natural gas-based boilers with electric boilers, running on clean energy for emission reduction, and therefore reliable energy storage becomes indispensable. Electric boilers can be readily integrated with other processes as they are easily programmable, and controllable, and maintain high efficiency regardless of the output range. They also cost 40% less than gas boilers.<sup>3</sup>

## Industry Specific Benefits of electrification

### PAPER & PULP

Electric boilers may be cost effective in cases where there is still moisture left in the wood. Green wood consumes just 10 Giga Joules while dried wood consumes nearly 20 Giga Joules inducing the need for energy efficient processing where wood has to be dried for further processing. Electric boilers may make the entire wood processing system relatively energy efficient.

### FOOD & BEVERAGE

Food industry is a large energy user mostly in the form of process heat. Preservation of moisture is required in some cases while in other cases, drying the food product completely off the moisture is required either for preservation or for low costs of shipment. Electric technologies such as ultra-sound assisted heating, electric magnetic heating, become indispensable in these processes. Sugar production and lime kiln firing are high-temperature applications, and these processes are rapidly transitioning to electricity-based processes.

Reliable energy storage, and waste heat recovery from this industry are opportunities that Brenmiller can continue to capitalize on.

## Waste Heat Recovery and Thermal Energy Storage Market

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<sup>3</sup> ibid

Climate change has been the greatest challenge of our times, and the numbers of countries that have pledged to reduce carbon emissions to zero by 2050 continue to grow. As of April 2021, 44 countries, and the European Union, have pledged to meet the Net Zero target. These countries account for 70% of the global emissions of CO<sub>2</sub>. The Net Zero scenario would call for a shut down of all the non-efficient coal plants by 2030, the rest to be retrofitted by 2040, and the deployment of enough renewable energy plants to account for at least 90% of the total energy demand by 2050 and the rest from nuclear energy.

Further, industry emissions must be cut down by 95% to achieve this goal. This would entail a ban on fossil fuel boilers to give way for innovative replacements, installation of carbon capture, utilization, and energy storage systems, and efficient recovery, and reuse of waste heat. Announced Net Zero pledges would cut emissions in 2050 by 60% in the electricity sector, 40% in buildings, 25% in industry, and just over 10% in transport.

The key pillars of decarbonization of the global energy system are energy efficiency, behavioral changes, electrification, renewables, hydrogen and hydrogen-based fuels, bioenergy, and CCUS. Among these carbon emission mitigation measures, while adopting renewable sources will result in the maximum contribution to the Net zero scenario, efficiency measures by industries and buildings are expected to contribute 3% and 7%, respectively. Electric vehicles are expected to contribute 18% of the reduction in CO<sub>2</sub> emissions.

***Frost & Sullivan believes that the mentioned areas could provide major opportunities for Brenmiller. In addition to its conventional solutions for TES in renewables and waste heat recovery for industrial processes requiring medium to high temperatures of up to 550°C in output, there is significant potential in participating in EV charging infrastructure where Li-ion batteries currently dominate.***

***Frost & Sullivan also believes there is a major opportunity to participate in the decarbonization of the booming Datacenters market in waste heat recovery and providing TES solutions as they shift to renewable sources, either in collaboration with Energy Services Companies (ESCOs) or through direct engagement.***

The Industry Sector is the largest global source of CO<sub>2</sub> emissions and has a vital role in achieving the Net Zero pledge. Industrial CO<sub>2</sub> emissions totaled to 8.4Gt in 2020, of which developing economies accounted for 80% and developed economies accounted for 20%. Heavy industries like Steel, Cement, chemicals accounted for almost 70% of the CO<sub>2</sub> emissions, and production of these is heavily concentrated in the emerging and developing markets, with China accounting for almost 60%. ***Brenmiller currently focuses on the food &***

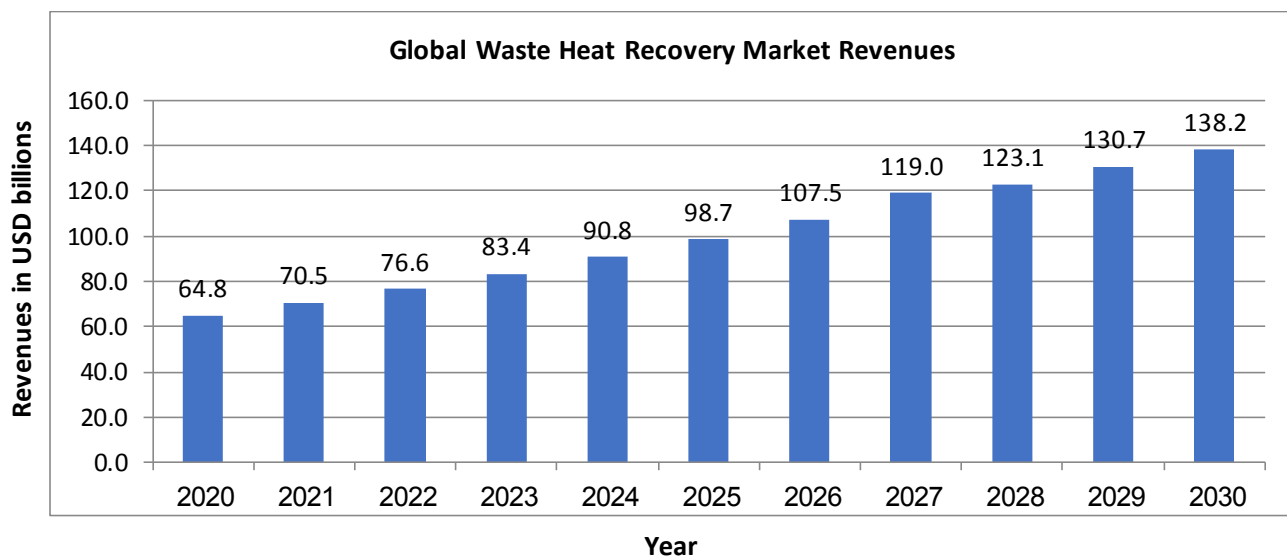
*beverage, pulp, and plastics industries and could potentially address other sectors, including steel, in the future.*

## WASTE HEAT

Waste heat recovery from industrial processes provides industrial clients tangible economic benefit in the form of reduced energy costs and improves their competitive position. Research studies estimate that 20 to 50 percent of energy consumption by the industrial sector is discharged as waste heat, and at least 18 to 20 percent could be recovered and reused.

*Brenmiller is in the medium temperature segment with the capacity for input heat of up to 750°C and output heat of up to 550°C to capture process steam and convert it to electricity in food processing, pulp and paper, and plastic industry.*

Figure: Global Waste Heat Recovery Market Revenues



Source: Frost & Sullivan

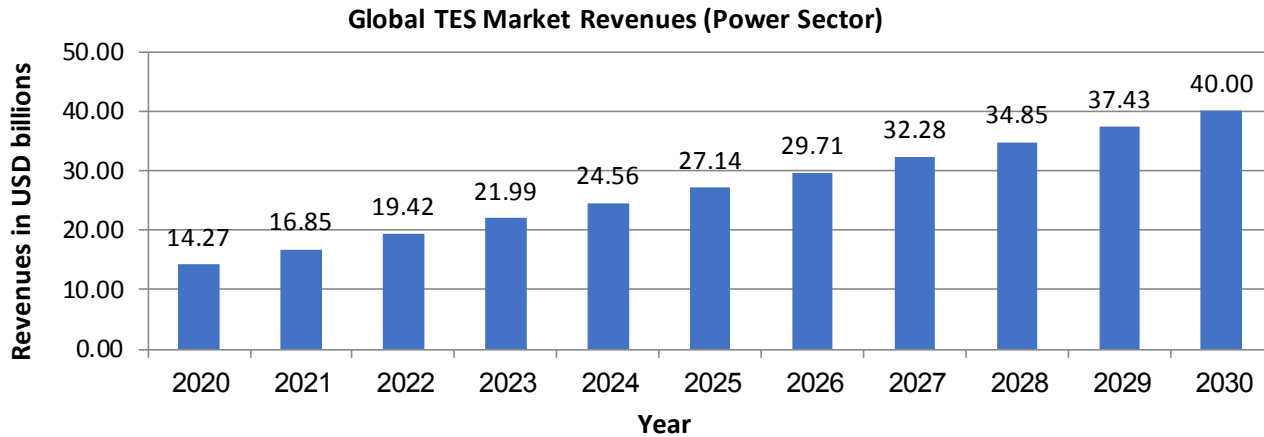
## Thermal Energy Storage (TES)

The global TES market is expected to triple by 2030 and storage capacity is expected to increase to over 800 GWh from the current capacity of 234 GWh<sup>4</sup>. TES offers the benefits of demand shifting and seasonal storage. Some key barriers for the deployment of TES systems has been the relative immaturity of the technologies,

<sup>4</sup> Innovation Outlook : Thermal Energy Storage, IRENA, 2020

uncertainty about their performance, lack of knowledge about their merits, the high costs of molten salts, the need for substantial backup of energy to minimize the risk of frozen salts, the corrosive nature of molten salts, and the limit of thermal stability of molten salts is at 565°C.

**Figure: Global Thermal Energy Storage Market Revenues from Power Sector**



Source: Frost & Sullivan Analysis

## Growth Opportunities for Brenmiller by Geographies

### Europe

The binding target for countries in the European Union is to achieve an efficiency of 32.5%, translating to the primary energy consumption of no more than 1,273 million tons of oil equivalent (Mtoe) and final energy consumption of no more than 956 Mtoe in 2030.<sup>5</sup> There are at least 383 large industrial facilities located in this region that collectively consume more than 78,645 GWh of power. The waste heat recovery potential is much higher in Central Europe than in the rest of the continent.

### Israel

Israel envisages utilizing “natural gas or renewables only” for the production of energy by 2030 with 17% energy efficiency. This goal will entail shutting down coal-based plants with a capacity of 3.4 GWh, to be replaced with CCGT or dual-fuel plants. This transition is projected to produce a six-fold increase in renewables and a ten-fold increase in energy storage capacity. In 2030 Israel is positioned to be the world leader in solar energy dependency at a staggering 26% of the energy produced by the country. By 2030, 80% of the electricity

<sup>5</sup> Eurostat

generated in Israel will come from solar sources during the noon hours. In addition, several policy measures are expected to be imposed on electricity producers, like setting energy efficiency requirements as a part of their license conditions, promoting energy trading, and issuing energy efficiency certificates.

***It is estimated that NIS 7 billion will be invested in energy storage solutions. Brenmiller has provided storage solutions to the Israeli Defense Forces and is well poised to meet the demand for storage solutions with a targeted approach.***

## Brazil

Brazil has two major energy efficiency initiatives – the National Program for energy conservation (PROCEL) and the Program for Energy Efficiency (PEE). The PEE made it mandatory for businesses to invest at least 0.75% of their revenue in energy efficiency R&D and at least 0.25% into a program of energy efficiency. Brazil is a huge market for industrial thermal energy, and TES solutions may have huge opportunities in its cement sector. Brazil's share of renewable energy has remained over 40% over the last two decades. The need for storage solutions in Brazil is imminent. Brenmiller, with the right partnerships or JVs, has a major opportunity to capitalize.

- ***Brenmiller has provided*** the first TES system powered by renewable energy to be used to generate hot air for manufacturing plastic products in the world and also the first thermal energy storage system powered by renewable energy to be used for commercial operations in South America.

## The U.S.

The industrial sector in the U.S. consumes the most energy than any other end-use sector, and it is projected to grow nearly twice as fast as any other end-use sector between 2020 and 2050. However, with several energy efficiency measures in place, the final consumption is set to reach 2019 levels by 2030. As the share of renewables increase, their intermittent nature is expected to be stabilized by investments in storage technologies, creating a huge potential for storage solutions providers like Brenmiller.

The Chemical, paper and refining industries require process steam and are the major end-user sectors of power and heat generated by Combined Heat and Power plants in the U.S. Clean energy storage solutions will further enhance the efficiency of such plants while also contributing to their energy efficiency targets.

## Additional Significant Growth Opportunities for Brenmiller

### Transition to Natural Gas-fired Power Plants from Coal-fired Plants

The transition from Coal to combined-cycle gas-fired plants is aiding the heat recovery and storage market. Coal power plants generate 40% of the world's electricity, with 80 countries heavily relying on coal for power generation – the top 10 of which account for 86% of the world's coal-fired plants' operating capacity – and 13 more planning to join them. 19 of these countries plan to completely retire coal plants in coming years in order to meet the goal of Net Zero, replacing them with natural gas-fired plants.

Combined Cycle Gas Turbine (CCGT) plants are energy efficient since waste heat is recovered, stored, and used to run the steam turbine to generate additional power, thereby maximizing the power output. Such plants in the U.S. have a combined installed capacity of over 67 GW, supplying 13% of the energy consumed in manufacturing and reducing CO<sub>2</sub> emissions by 200 million metric tons per year.

***Frost & Sullivan estimates that investments in new natural gas capacity will increase by nearly 377.5 GW between 2020 and 2030, with China and North America ramping up gas plant additions. Increased gas production, a better pipeline network in both countries, and lower gas prices favor gas power additions over coal, especially in CCGT plants, since it is a low-carbon power generation source with relatively high efficiency.***

### Growth In Renewable Power Generation, Their Intermittency and The Need For Reliable Storage

Electricity generated from renewable sources will increase from 26.1% in 2020 to 42.0% in 2030, rising at coal's expense, decreasing from 28.9% to 17.3%. One of the key outcomes of strong renewable investment has been high growth for energy storage solutions. Going forward, regulatory mandates and incentives for storage are likely to increase, further driving new investment. As the penetration of renewables increases rapidly, storage will play a pivotal role in ensuring grid stability and maximizing revenue opportunities from renewables – either through increased self-consumption to avoid high electricity costs and demand charges, or through selling electricity back to the grid at times of peak consumption. Given the cost advantages of SHS thermal storage as discussed elsewhere in this report relative to other comparable storage technologies, Brenmiller's addressable market is only growing larger.

## Tapping into the growing ESCO/Energy as a Service (EaaS) Market

Energy Service Companies (ESCO) were initially involved in improving energy efficiency for their customers coupled with equipment repair services. The Energy-as-a-service model encourages Distributed Energy Resources to meet customer's requirements without upfront costs or the skills required by the customers to install it themselves onsite otherwise. As Distributed generation grows, growth in storage requirement is expected to increase in tandem, which can be addressed by companies like Brenmiller with an innovative 'storage as a service' and their modularized solutions to new clients directly, or through partnerships with the EaaS service providers.

## 5. Competitive Landscape

Some of Brenmiller's closest competitors include Energy Nest, Azelio, kyoto, HEATRIX, Malta, Kraft Block. The bGen system is the only solution in the industry to efficiently recover, store and reuse waste heat on demand. Brenmiller's patent gives it sufficient moat since few players in the market can promise the cost benefits and efficiency that Brenmiller promises. Most current players are either stand-alone WHR systems manufacturers or TES solution providers with other technologies whose advantages and superiority over Brenmiller are yet to be validated by the market.

***The bGen™ system is the only solution in the industry to efficiently recover, store and reuse waste heat on demand.***

## Appendix #1: About Frost & Sullivan

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