



Advanced Sustainable Technologies



Environmental Solutions for a Better Future

Transforming Waste into Wealth

In a world grappling with the mounting challenges of waste management and energy sustainability, AST Ltd. has set forth a clear and compelling mission: To innovate and implement renewable energy projects that convert municipal and hazardous waste into clean, renewable electricity, thereby reducing waste, lowering carbon footprints, and generating a new source of sustainable energy.

A Greener Future, Today

Our focus is to create solutions that are not just theoretically viable but practically implementable. The adoption of our technology means zero waste going to landfills or being incinerated. We strive for 100% recycling efficiency, using a closed-loop process that produces no waste by-products. Our end-to-end solutions are designed with environmental conservation at their core, aiming to reduce the need for complex waste transfer stations and, in turn, preserve the natural beauty of landscapes worldwide.

A Global Approach

Our mission takes us wherever there is a need for a cleaner and more sustainable environment. From our groundbreaking St. John Renewable Electricity Plant in the US Virgin Islands to our Hazardous Waste Recycling Project in Israel, we are global pioneers aiming to make a lasting impact. Each of our projects is more than just a local solution; it's a disruptive, scalable model that can be efficiently implemented across countries and municipalities.

Energy for All

By efficiently converting waste into clean, renewable electricity, we aim to become a vital part of a greener grid. The electricity we generate can be stored, thanks to our state-of-the-art Thermal Energy Storage systems, providing reliable, on-demand power that enhances grid stability and makes renewable energy more accessible.

Economic Prosperity

Our mission extends beyond the environment. We are deeply committed to creating value for communities, cities, and countries. Our projects are designed to be economically viable, providing local job creation, revenue generation, and a pathway to a cleaner, richer future for everyone involved.

Together with our partners, clients, and stakeholders, we are tirelessly working to make our mission a reality, for the betterment of the planet and its inhabitants.

Pioneering a Zero-Waste, Energy-Positive World

Our vision at AST is clear and ambitious: To be the world leader in turning waste into sustainable energy and valuable resources, thereby closing the loop in the waste lifecycle, and achieving a truly circular economy.

Transformative Innovation

We envision a world where waste is not just discarded or minimized but is also a potent source of clean, renewable energy and raw materials. Through our transformative Waste-to-Energy technologies, we aim to replace traditional fossil fuels, reduce greenhouse gas emissions, and become a mainstay in the global transition to sustainable energy.

Zero-Waste Communities

We are committed to empowering communities across the globe to reach a zero-waste status. Our modular, scalable solutions are designed to meet the specific waste management and energy needs of any locality, from remote islands to bustling cities, without damaging the natural environment.

Resilient Energy Grids

By integrating our cutting-edge Thermal Energy Storage (TES) systems with waste-to-energy technology, we aspire to make renewable energy more reliable and accessible. Our vision encompasses an energy landscape where electricity grids are not only cleaner but also more resilient, capable of adapting to the fluctuating demands and supply inherent in renewable energy sources.

Global Partnerships for Local Impact

Our vision is global, but our approach is deeply rooted in local communities. By forming strong partnerships with governmental bodies, industry leaders, and local stakeholders, we aim to customize our solutions for maximum impact. Each project we undertake serves as a testament to what collaborative innovation can achieve.

Societal Well-Being

We see a future where our technologies not only contribute to environmental conservation but also spur economic growth. From job creation to energy cost savings, we aim for our projects to improve the standard of living in the communities we serve.

In each line of code, in every piece of machinery, and through each partnership, our vision guides us. It is not merely a statement but a commitment to a future where waste is a thing of the past and energy sustainability is a present reality.

With AST, the future is not just renewable, it's inexhaustible. Join us as we chart the course to a cleaner, greener, and more prosperous world.

Technologies that Change the World

At AST, we have a vision to serve our planet through technological excellence. Our Waste-to-Value (WtV) solutions stand as exemplars of this commitment. We harness cutting-edge methodologies to transform the way we manage waste and generate energy, making leaps in sustainability that were once thought impossible.

Pyrolysis: Beyond Thermal Decomposition

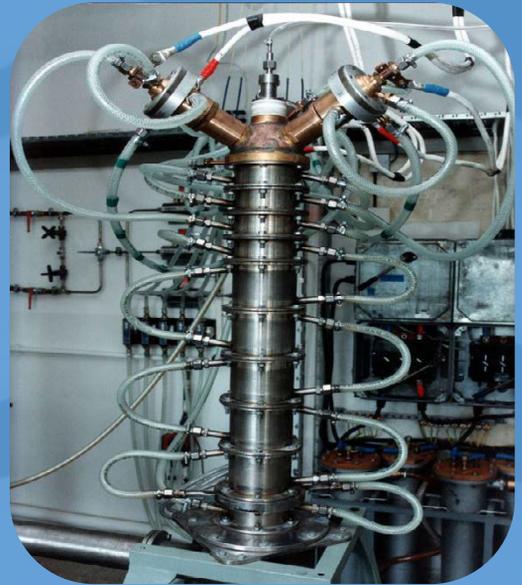
Pyrolysis is the process of thermally decomposing organic material in an inert atmosphere. This method allows us to break down complex waste materials without combustion, reducing the release of pollutants. It's a cornerstone technology that makes our WTE plants exceptionally eco-friendly and efficient.

Gasification: The Synthesis Gas Revolution

Gasification converts organic or carbonaceous materials into carbon monoxide, hydrogen, and carbon dioxide. This synthetic gas (or 'syngas') can be used for generating electricity, further enhancing the performance and energy output of our WTE plants.

Plasma Technology: Harnessing the Power of the Sun

Our advanced Plasma Technology uses extremely high temperatures to reduce waste to its basic elements. The process completely decomposes hazardous materials and medical waste, ensuring that even the most challenging waste materials are treated safely and efficiently.



CO2-to-Fuel : The Future of Carbon Recycling

Drawing upon recent advancements, our CO2-to-Fuel technology captures emitted carbon dioxide to convert it into useful fuels like Methane or Ethanol. This not only makes our operations carbon-neutral but even paves the way for a carbon-negative future.

AST's Hydrogen Revolution: The Future is Now

Unlock the future of clean energy with AST's cutting-edge electrolyzer technology. Designed for unparalleled efficiency and scalability, our hydrogen solutions turn water into green hydrogen using renewable electricity. As industries seek sustainable energy alternatives, AST leads the way, turning visions of a hydrogen-powered world into today's reality.



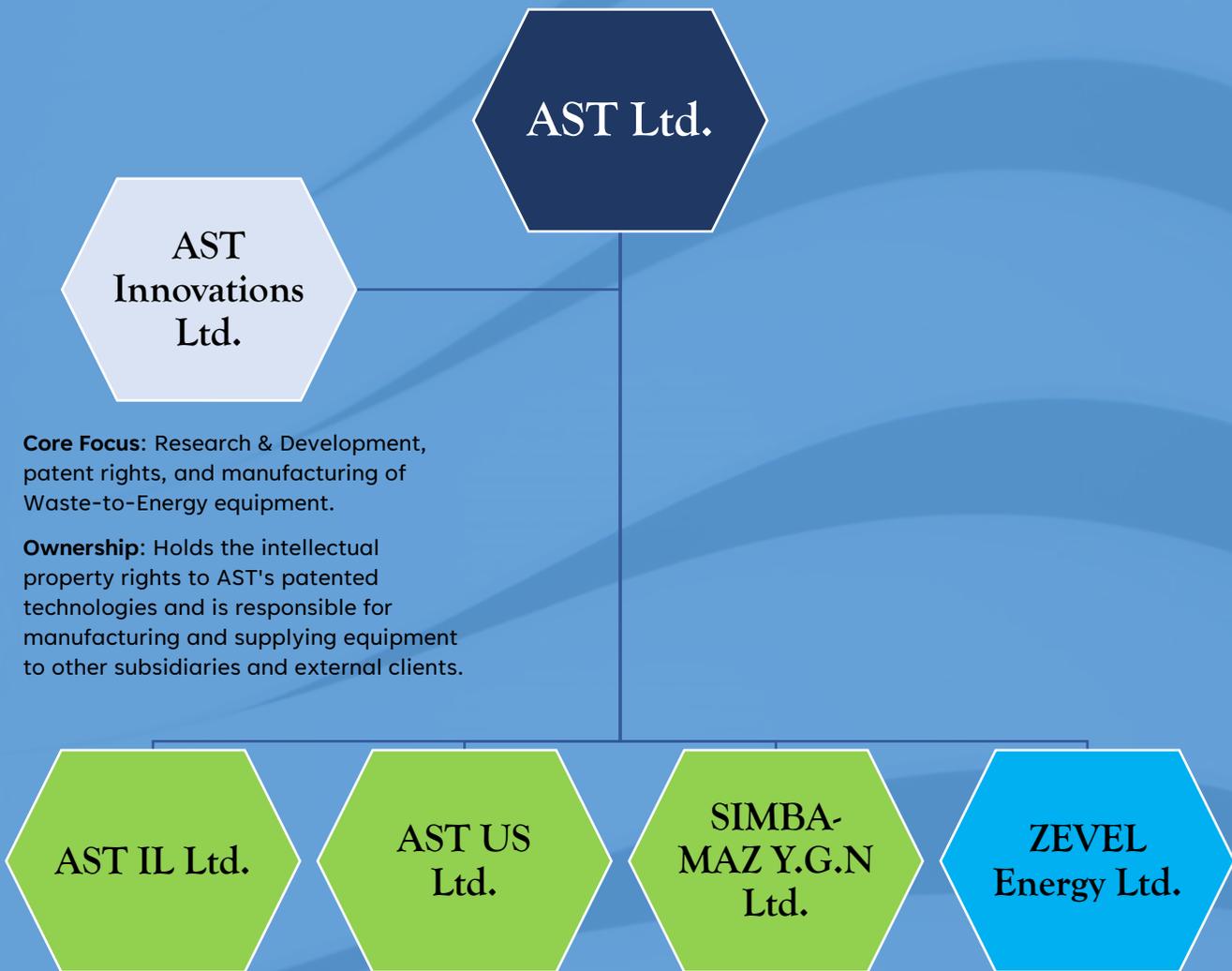
Invest in the Future

Our technological suite isn't just a series of isolated solutions; it's an integrated approach to tackling some of the most urgent environmental challenges of our time. By partnering with AST, you are investing in a future where technology and sustainability go hand in hand to create a better world.



Company Structure

AST is a diversified group specializing in sustainable technologies, operating through multiple strategically positioned subsidiaries. Each subsidiary is designed to focus on a distinct sector within the clean technology and energy markets. The structure allows for seamless synergy, innovation, and risk management, ensuring that each arm of the AST Group is empowered to achieve its mission and contribute to the overall vision of a zero-waste, energy-positive world.



AST Ltd.

AST Innovations Ltd.

Core Focus: Research & Development, patent rights, and manufacturing of Waste-to-Energy equipment.

Ownership: Holds the intellectual property rights to AST's patented technologies and is responsible for manufacturing and supplying equipment to other subsidiaries and external clients.

AST IL Ltd.

Core Focus: Development and operation of renewable energy and waste management projects within Israel, with a specialized unit for hospital waste management solutions.

Ownership: This subsidiary holds and operates renewable energy projects within the Israeli market, utilizing patented technologies manufactured by AST Innovations.

AST US Ltd.

Core Focus: Development and operation of renewable energy projects in the USA.

Ownership: This subsidiary owns and operates specific renewable energy projects in the USA, utilizing the patented technologies held by AST Innovations.

SIMBA-MAZ Y.G.N Ltd.

Core Focus: Undertaking clean energy projects within India, with a focus on municipal Waste-to-Energy solutions.

Ownership: Holds the license to operate and manage renewable energy projects within India, utilizing the patented technologies from AST Innovations.

ZEVEL Energy Ltd.

Core Focus: Business operations centered around energy storage technologies including Thermal Energy Storage (TES) systems.

Ownership: Holds the commercial rights to market, sell, and deploy energy storage solutions, utilizing technologies developed by AST Innovations.

Join the Sustainable Revolution



The Future is Here and It's Sustainable

Ready to Take the Next Step?

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Don't let waste be the end of the story. Turn it into a new beginning with AST