

Disruptive, modular, carbon-removing renewable energy technology.





and incineration.

equivalent.

Our SG100 technology removes carbon while simultaneously generating clean, carbonnegative renewable energy.

Now is the time to turn

practice of burning or

environmentally detrimental

away from the

burying waste.

SG 100 advanced thermal cracking technology transforms waste into a clean synthesis gas (syngas) and char/biochar, which captures and removes carbon. And because the SG100 doesn't burn waste, the process has no problematic emissions.

Processing up to 48,000 tonnes of waste a

year, the SG100 will on average generate up

to 40,000 megawatt hours of power and

remove up to 18,000 tonnes of CO2

SG100 syngas is tar-free, certified as clean as natural gas, with market leading 'End of Waste' accreditation from the UK's

Environment Agency. It can be used to generate electricity, steam and heat, or processed via methanation for grid injection, renewable transport fuels, and chemical feedstock. Coupled with electrolysis, the SG100 can generate over 650 tonnes of green hydrogen a year.

Comprising 10%-15% of the SG 100's total output, biochar captures and removes carbon. It also has valuable uses in soil stabilisation and conditioning, as a fuel, in fertilizers and construction aggregates.

"Haldor Topsøe A/S made a paid study, investigating conversion of the syngas from Standard Gas and have found that the gas is suitable for production of SNG (Substitute Natural gas) or LNG (liquefied Substitute Natural gas). The gas can also be used for production of chemicals like Methanol, DME, TIGAS (synthetic gasoline) or FT. Due to the high Methane content in the syngas, an additional steam reforming process step will be needed, either as a separate step or integrated into the SG100". Haldor Topsøe

Today, most non-recyclable wastes are burnt or buried, adding to environmental issues and atmospheric CO2. Our

SG100 offers a low-cost, sustainable alternative to landfill



SG100: Technical Performance	Moisture content of feed	Export mass flow (kg/hr)	Export volumes (m3/hr)	Export - Energy content MJ/m3	Export - Thermal (MWt)	Export - Gross capacity (MWe)
Biogenic - 100%	10	3446	3363	18.5	17.3	6.6
Biogenic - 100%	25	2358	2281	18.8	11.9	4.5
RDF - 100%	10	3476	3715	20.2	20.8	7.9
RDF - 100%	25	2473	2619	20.6	15.0	5.7
~47.5% RDF, ~40% biogenic, ~12.5% plastic	10	3582	3482	24.3	23.5	8.6
~47.5% RDF, ~40% biogenic, ~12.5% plastic	25	2601	2503	24.7	17.2	6.3
~70% plastic, ~30 biogenic	10	3949	3008	48.3	40.3	13.6
~70% plastic, ~30 biogenic	25	3059	2313	48.8	31.3	10.6

SG100 biochar captures and removes carbon, and has value in a variety of applications.



We have a way to harness the energy in the rich resources society currently help protect the planet.



Comparison to Alternatives Competitors in Advance Thermal Conversion

	SG100	Incineration
Low Cost	$\bigcirc \oslash \oslash \\ \oslash \oslash \\ \oslash \oslash \\ \bigcirc \oslash \\ \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \\ \bigcirc \bigcirc \bigcirc \bigcirc$	$\otimes \otimes$ $\otimes \otimes \otimes$
Feedstock Flexibility	$\bigcirc \bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc \bigcirc$
Scalability	\odot	(\mathbf{X})
Energy Efficiency	\odot	\odot





Decarbonising energy, transforming waste management

Challenges	Standard Gas Technologies, Ltd.
Landfill	 Waste generates electricity, displacing other fuels Reduction in harmful methane emissions and pollution Cheaper destination for unrecyclable waste
Traditional Energy from Waste	 Fast pyrolysis process with dousing and cracking that produces clean syngas Significant amount of carbon captured within physical char rather than being emitted Char is a commodity with industrial uses
Carbon Footprint	 Standard Gas process is carbon negative under ISO 14064, even with RDF feedstock Using pure biogenic feedstock, the carbon negativity is significantly increased
Feedstock	 Standard Gas technology specifically designed to accept wide range of feedstock Distributed model for variety of waste availability Broader client appeal Potential to access waste grades with higher gate fees
Revenue	 Standard Gas technology compatible with range of client business models including hydrogen production, power generation and synthetic fuel production Strong prospects for growth in prices in these markets and the carbon negativity market as they evolve

"From our background in chemical processing, we fully understand the innovative steps that have been undertaken in this technology to overcome limitations of other pyrolysis technologies. Having visited Standard Gas' demonstration plant, we confirm our view that the technology is reliable and very promising". **Munich Re**



Our Purpose

Our purpose is to accelerate the transition to Net Zero and help mitigate the impacts of Climate Change by providing carbonnegative and carbon-removing energy solutions.

Our Vision

Our vision is to make a significant contribution to global efforts to halve carbon emissions, and to end the final disposal of residual, non-recyclable wastes by transforming waste management into a key element of the Circular Economy.

Our Mission

Our mission is to achieve, worldwide and at scale, the commercialisation and implementation of our advanced thermal conversion technology, transforming biogenic and residual wastes into sustainable, renewable energy and valuable products, to power homes, businesses, other organisations, transportation, and infrastructure.

Transition to Net Zero What next?

Our technology offers game-changing solutions to decarbonisation challenges.

Whether you're looking to position for Net Zero, achieve Net Zero, or help save the world, your pathway to decarbonisation starts here.

Email or give us call for technical information on the SG100 waste-to-energy plant.

Join The Evolution.



Disruptive, modular, carbon-removing renewable energy technology.

standard ^{gas}

Contact us

020 7363 8888 info@standardgas.com www.standardgas.com

Standard Gas Technologies Ltd. 16 Berkeley Street, London <u>W1J 8DZ</u>

(in) Follow us on Linkedin — @standardgas



Laurence Sharrock Technical Director Is@standardgas.com



Julian Leadbeater Business Development Director jl@standardgas.com