

Assessing the Performance of the Silverstream® System Onboard LNGCs in Operation Today

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SILVERSTREAM TECHNOLOGIES

MARKET LEADER IN AIR LUBRICATION



179

TOTAL PROJECTS

44

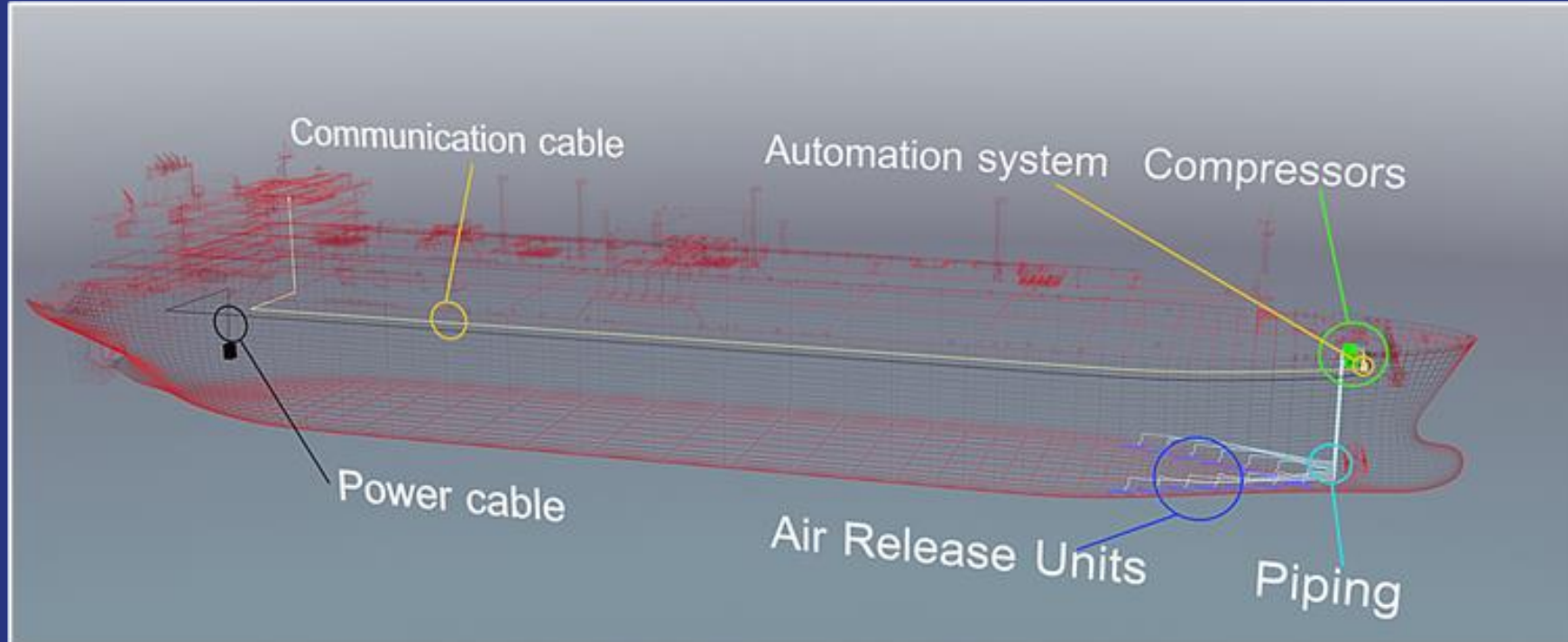
SYSTEMS IN SERVICE

70

BY THE END OF 2023



Silverstream[®] System



Silverstream® System **OFF**



Silverstream® System **ON**



Silverstream® System

7-10% NET

LNGC FUEL & CO2 EMISSIONS SAVING

550,000

ALS OPERATIONAL HOURS

22

PARTNER SHIPYARDS



CHOSEN BY:   In partnership with           

INDEPENDENTLY VERIFIED BY:        

Silverstream® System Reference List

33 x LNGC

LNGC 160-180k cum



91 x Boxship

8k-24k teu



26 x Ro-Ro & PCTC

5-7.5k LM
8.8K tcu



3 x Co2 Carriers

CO2 7.5k cum



8 x Wet Dry Bulk

85k dwt



18 x Cruise

115-185k GT



Silverstream® System Valued Partners



20+ Shipyards Worldwide
delivering 175+ installations

CSSC

 **Seatrium**



HYUNDAI
HEAVY INDUSTRIES



Navantia



MMHE



HUDONG



LNGC Successes



LNGC Reference List

33 x Carriers

Performance
Verified by:

 Lloyd's Register



UNIVERSITY OF
Southampton

Retrofit
Tanker 40k DWT
>5% NET



Retrofit
LNGC 168k cum
NET Savings 6-8% Net



Newbuild
12 x LNGC 175k cum
NET Savings 6-8%





4 x Newbuild
175k cum

In build
at DSIC



6 x Newbuild
175k cum

In build
at Jiangnan



4 x Newbuild
180k cum

In build
at CMHI Jiangsu



4 x Retrofit
160k cum

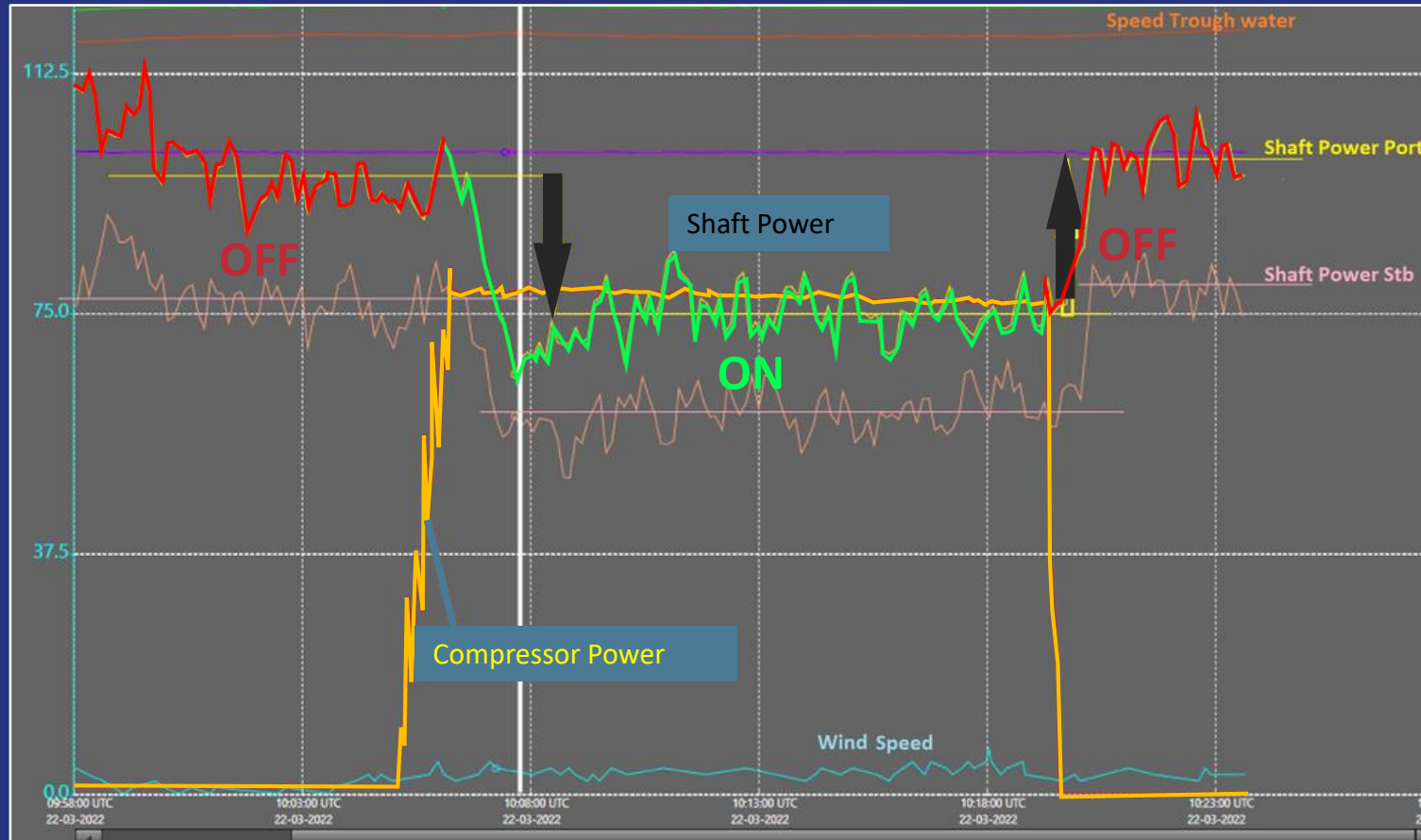
Contracted



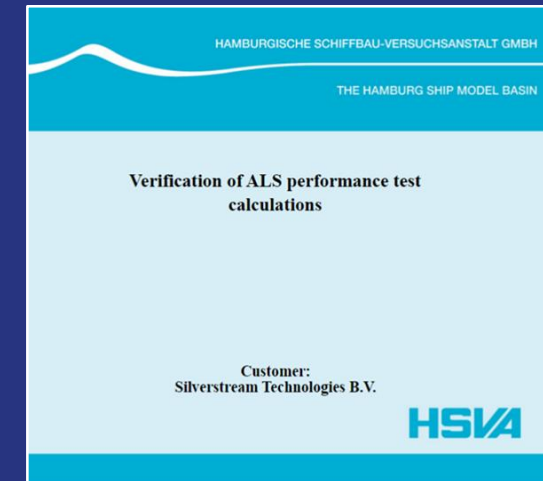
2 x Retrofit
174k cum

Contracted

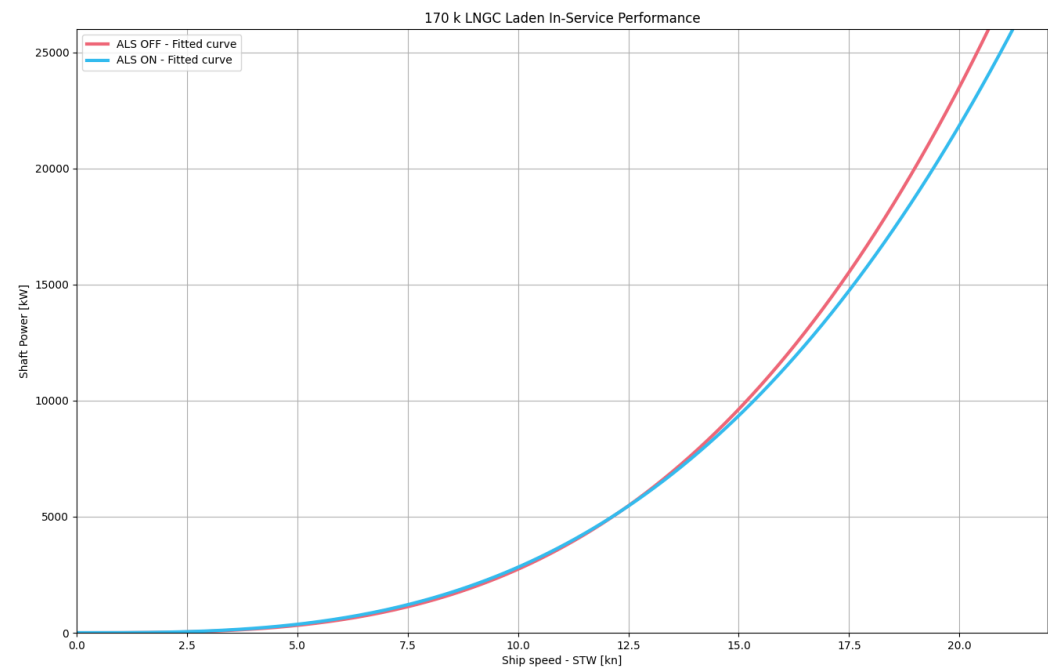
Independently Verified (LNGC Sea Trial)



7.4%
NET Savings
Verified by
HSVA

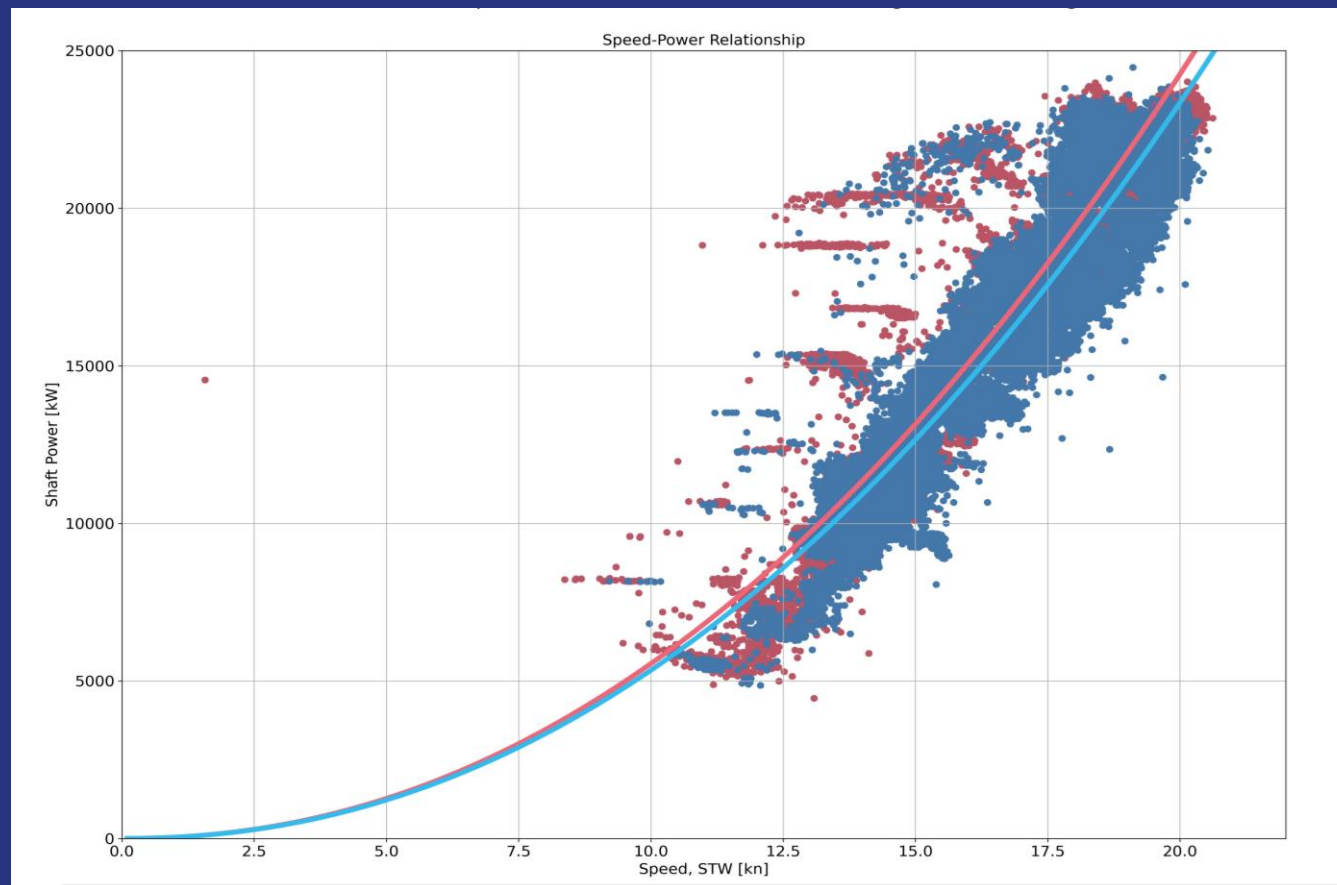


LNGC In-Service Performance



STW (kn)	Net Savings (kW)
14.0	160
14.5	230
15.0	310
15.5	400
16.0	500
16.5	610
17.0	740
17.5	880
18.0	1030
18.5	1200
19.0	1390
19.5	1590
20.0	1810

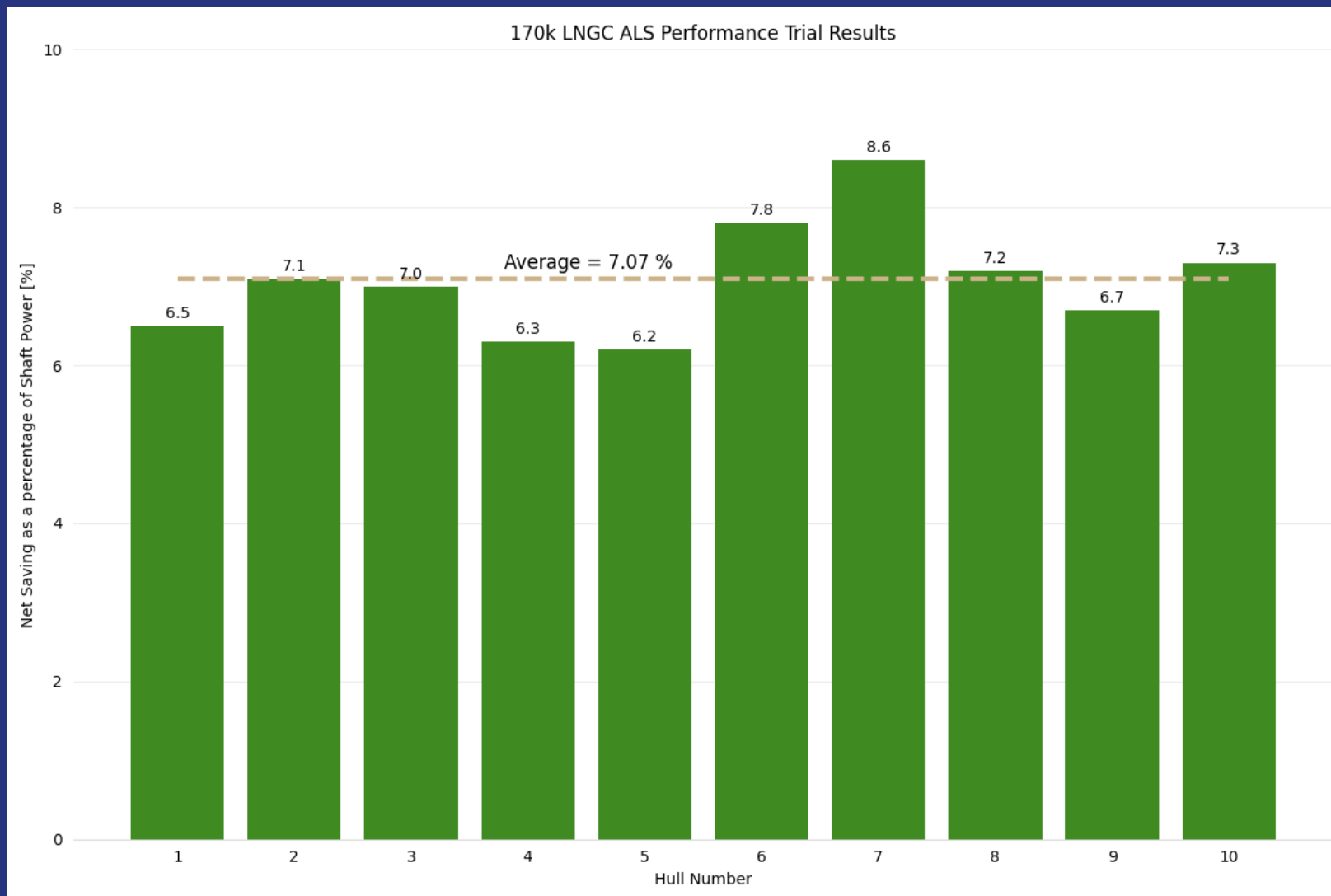
LNGC In-Service Performance



~408,642 data points
Combined 284 days of data

Gross Saving ~1,500kW
Net Saving ~1,150kW

In-Service LNGC Fleet Performance Monitoring



Silverstream Aftercare



Parts

Consumables
Spares
Kits
Replacements



Break Fix Service

Break Fix Repair,
Preventative
Maintenance



Multi Year Multi-Tier Agreements

Automated Parts,
Planned Preventative
Maintenance, Risk
Transfer



Overhaul & Upgrades

Extending equipment
life



Health Check & Training

Solutions to improve
productivity,
efficiency or
extension of life



Advanced Technology Solutions

Remote monitoring,
servicing, &
optimization. Metered
billing, Automated re-
ordering

Silverstream Hub: Self-service, Aftercare Services, Digital sales process, Digital service models



Gastech

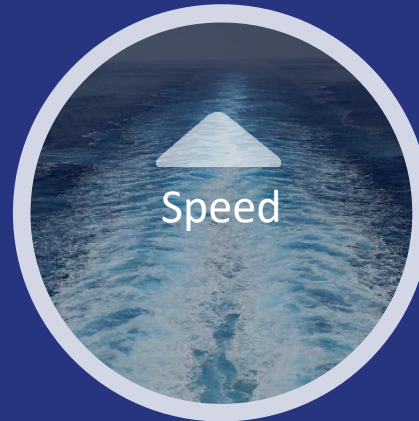


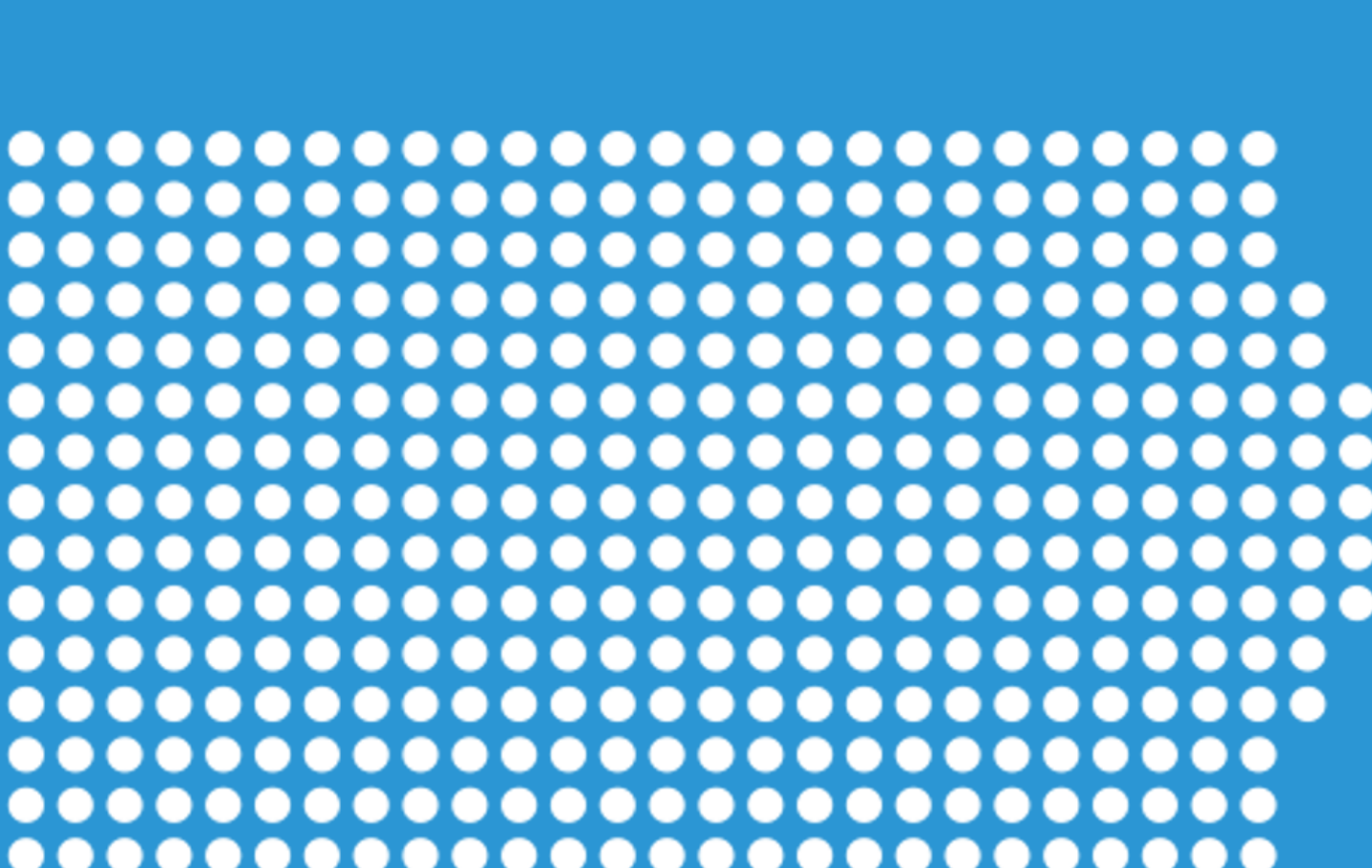
Hydrogen



Climatech

Silverstream® System Benefits





SILVERSTREAM

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TECHNOLOGIES

The Silverstream® System – Air Lubrication
The smart, verifiable, high impact efficiency technology