



A study by Opportunity Green

(Un)Sustainable from ship to shore: Annex

How the cruise industry is trying to gaslight the public into believing that LNG is a climate solution | September 2023

Carnival Corporation & plc



Our Focus Areas



Screenshot taken from Carnival Corporation & plc's sustainability sub-page 'Our Focus Areas' on 31 August 2023.

CLIMATE ACTION
We support the adaptation of alternative fuels and are testing new technologies as they become available. We are investing in new low-carbon or zero-carbon emission technologies, developing and installing advanced air quality systems and partnering with organizations and stakeholders to support our decarbonization efforts.

DIVERSITY, EQUITY & INCLUSION
Our success depends on the diversity, talent and dedication of our global employee base. We strive to provide an inclusive and supportive work environment with equal opportunities for professional growth throughout their career path.

CIRCULAR ECONOMY
As the world shifts towards a circular economy model where materials flow around a 'closed loop' system, we are shifting how we work with our supply chain partners to reduce waste.

Screenshot taken from Carnival Corporation & plc's sustainability sub-page 'Our Focus Areas' on 31 August 2023.



Screenshot taken from an infographic downloaded from Carnival Corporation & plc's sustainability sub-page '2030 Goals & 2050 Aspirations' on 31 August 2023.



We Are Focused on Decarbonization



FLEET optimization

Delivering larger, more-efficient ships as part of our ongoing newbuild program, replacing some of the existing ships in our fleet.

WE ARE FOCUSED ON DECARBONIZATION

ENERGY efficiency

Improving the existing fleet's energy efficiency through investment in projects such as service power packages and air lubrication systems and expanding shore power capabilities.

Screenshot taken from Carnival Corporation & plc's sustainability sub-page 'We Are Focused on Decarbonization' on 31 August 2023.



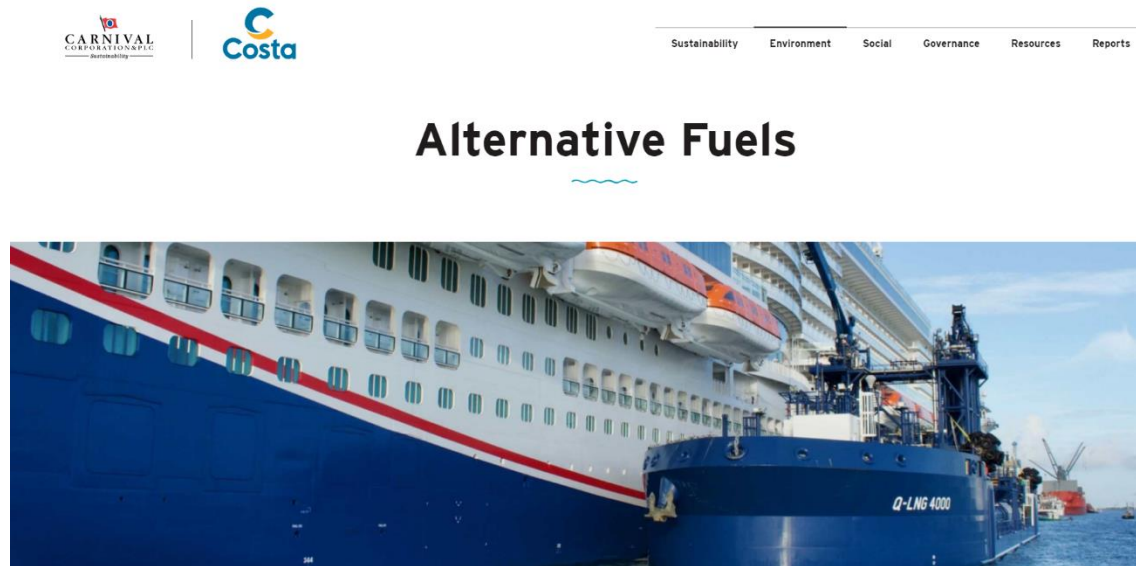
**We aspire to achieve
NET CARBON NEUTRAL
Ship Operations by 2050**

ITINERARY efficiency
Designing more energy-efficient itineraries and focusing on operational execution and investing in port and destination projects in strategic locations to support these efforts.

NEW TECHNOLOGIES and ALTERNATIVE fuels
Investing in a first-of-its-kind lithium-ion battery storage system, testing fuel cells powered by hydrogen derived from methanol and exploring carbon capture and storage. We are also supporting the adaptation of alternative fuels including LNG and other bio and synthetic hydrogen-derived fuels.

AIDA | Carnival | Costa | CUNARD | Holland America Line | P&O AUSTRALIA | P&O CRUISES | PRINCESS CRUISES | SEABOURN


Screenshot taken from Carnival Corporation & plc's sustainability sub-page 'We Are Focused on Decarbonization' on 31 August 2023.



CARNIVAL CORPORATION & PLC Sustainability | Costa

Sustainability | Environment | Social | Governance | Resources | Reports

Alternative Fuels



Screenshot taken from Carnival Corporation & plc's sustainability sub-page 'Alternative Fuels' on 31 August 2023.

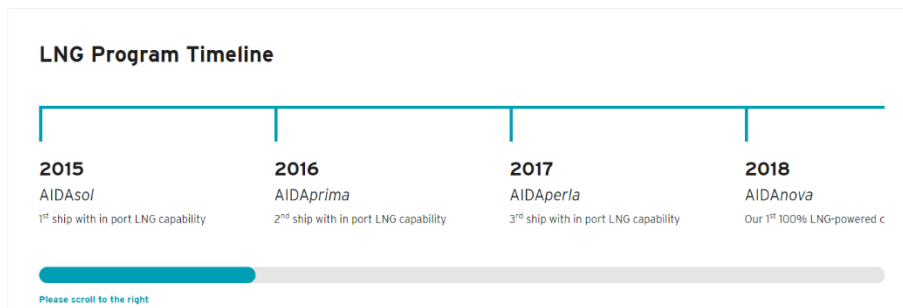
We support the adaptation of alternative fuels,

including liquefied natural gas (LNG) and other bio and synthetic hydrogen-derived fuels. We are proud to have led the cruise industry's use of LNG as an alternative fuel source, with eight LNG powered cruise ships currently in our fleet. As we strive to achieve our 2030 goals and 2050 decarbonization aspirations, the availability and effective adoption of alternative fuels, which have a lower CO2 profile, could impact our organization. That's why our most recent efforts include successfully piloting the use of biofuels, partnering with one of the world's leading methanol producers and introducing new LNG ships to our fleet.



<p>Biofuels</p> <p>During 2022, we piloted the use of biofuel as a replacement for fossil fuel on two of our ships....</p>	<p>Other Fuels</p> <p>Through our key partnerships and Classification Societies, we are also assessing methanol, bio-LNG....</p>	<p>LNG</p> <p>As part of our plan for carbon footprint reduction, we have 11 LNG powered cruise ships that are... →</p>
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Screenshot taken from Carnival Corporation & plc's sustainability sub-page 'Alternative Fuels' on 31 August 2023.



Learn More

[See Our Latest Report](#)
[Download Decarbonization Section](#)

Screenshot taken from Carnival Corporation & plc's sustainability sub-page 'Alternative Fuels' on 31 August 2023.

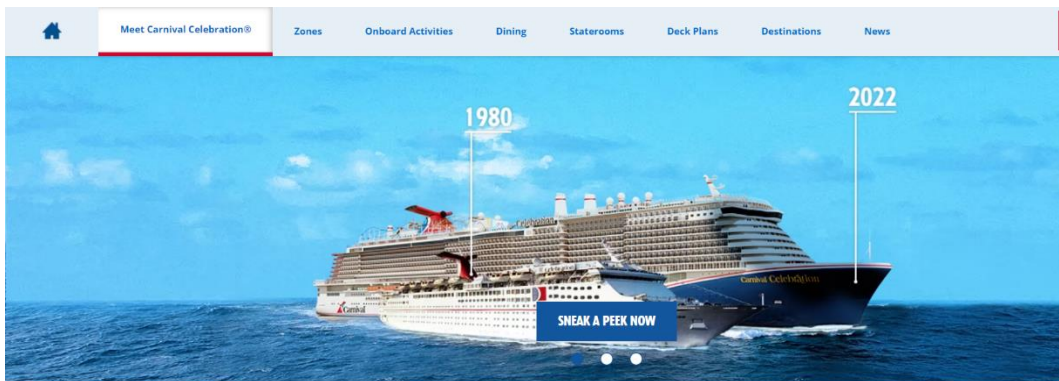
CARNIVAL CRUISE LINE



CARNIVAL JUBILEE: NEXT-LEVEL FUN, POWERED BY LNG

Welcome — in advance — to Carnival Jubilee! The next ship in line after Mardi Gras® and Carnival Celebration® has some big flip-flops to fill, and you can count on Carnival Jubilee to take things to the next level with six “zones” of fun. Zones are areas themed to transform your vacation into a unique mix of experiences — hop from zone to zone throughout your day to make your own. (And two of them — **Currents™** and **The Shores™** — are new, ocean-fresh fun spaces.) We’re talking things like the third bistro at sea — **Emeril’s Bistro 717™** — from our new Chief Culinary Officer; plus Carnival classics like **BOLT®**, **RedFrog® Tiki Bar**, **Family Feud™ Live**, **Cucina del Capitano®**, **Seuss at Sea™** and **Playlist Productions™**. These will be joined by fresh innovations like **The Golden Mermaid™** and **Dr.Inks, Ph.D.™**... plus even all-new onboard fun spots. And every last one of them is powered by clean-burning LNG fuel!

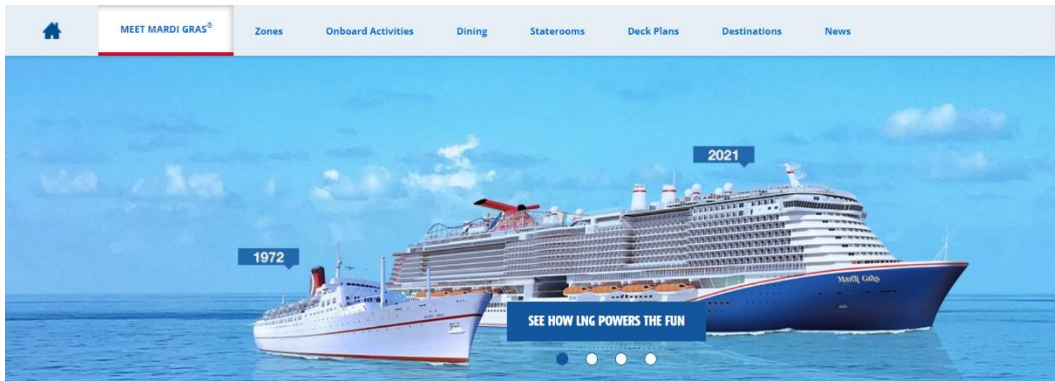
Screenshot taken from Carnival Cruise Line’s sub-page ‘Carnival Jubilee’ on 31 August 2023.



CARNIVAL CELEBRATION: GREAT FUN TOGETHER, ALL POWERED BY LNG

You know, it’s hard work making effortlessly-fun vacations. That’s why we’re looking forward to kicking back with you on the new Carnival Celebration as we toast to the last 50 years. So please bring that unique Carnival spirit... and know that this ship’s bringing the fun. Just like sister ship Mardi Gras®, Carnival Celebration has **six Zones** — themed areas that bring together incredible experiences and flavor. New flavors you haven’t experienced yet — nobody has! — are heating up at **Latitudes™**, **The Golden Jubilee™** and **Emeril’s Bistro 1397™**. (Mmm, new Emeril.) Carnival Celebration also marks the return of innovations like **BOLT®** — our onboard rollercoaster, **Bonsai Teppanyaki™**, **RedFrog® Tiki Bar**, **Family Feud™ Live**, **Havana Bar™**, **Seuss at Sea™**, and **Playlist Productions™**. Perhaps best of all, all the fun you’ll have on Carnival Celebration is powered by clean LNG fuel!

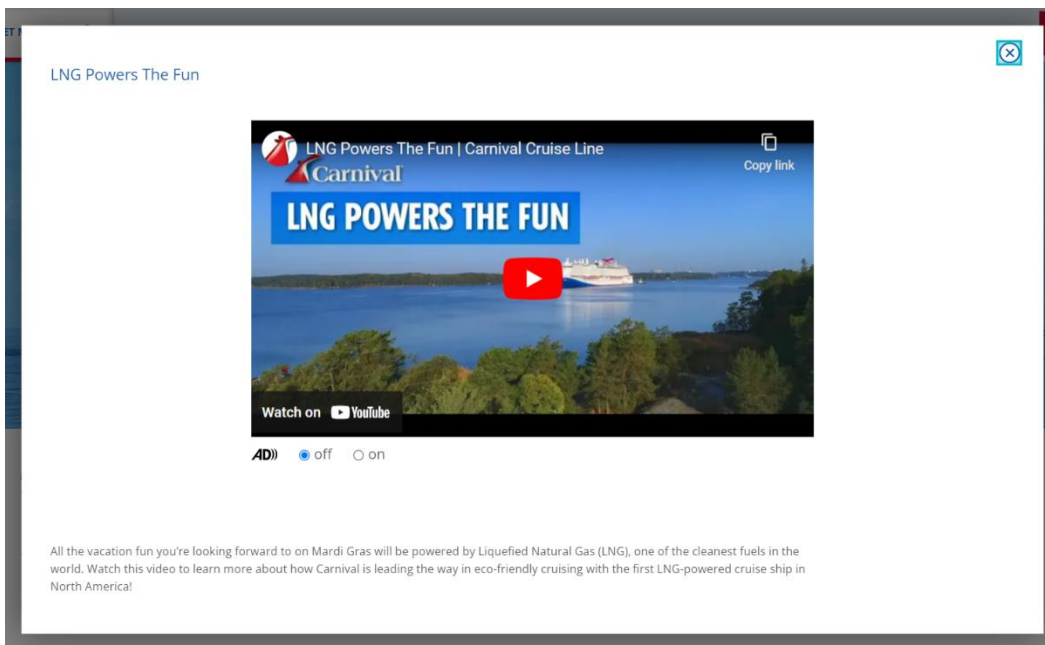
Screenshot taken from Carnival Cruise Line’s sub-page ‘Carnival Celebration’ on 31 August 2023.



MARDI GRAS: FUN-FUELED VACATION INNOVATION POWERED BY LNG

When we launched our first ship, 1972's *TSS Mardi Gras*, we made cruising a lot less stuffy, a bit less fancy, the kind of fun everybody could enjoy. Nobody expected this ship to change the cruise world, but... here we are! So here's a brand-new ship with a familiar name. With this *Mardi Gras*® we aren't just paying homage to our first ship — in cruising circles this name suggests innovation, signals the start of something big. Oh, and this *Mardi Gras* still shouts "fun!" at the top of its lungs. This ship introduces **Zones** — six themed areas packed with brand-new experiences for eating, drinking and spectacularly getting down to fun. There's **BOLT**®, the first-ever rollercoaster at sea, **Emeril's Bistro 1396**™ from yes-that-Emeril, **Family Feud**™ Live for everybody... plus incredible new bars like **The Brass Magnolia** and **Fortune Teller**. Everybody can enjoy *Mardi Gras*, sailing now. Come on down!

Screenshot taken from Carnival Cruise Line's sub-page 'Mardi Gras' on 31 August 2023.

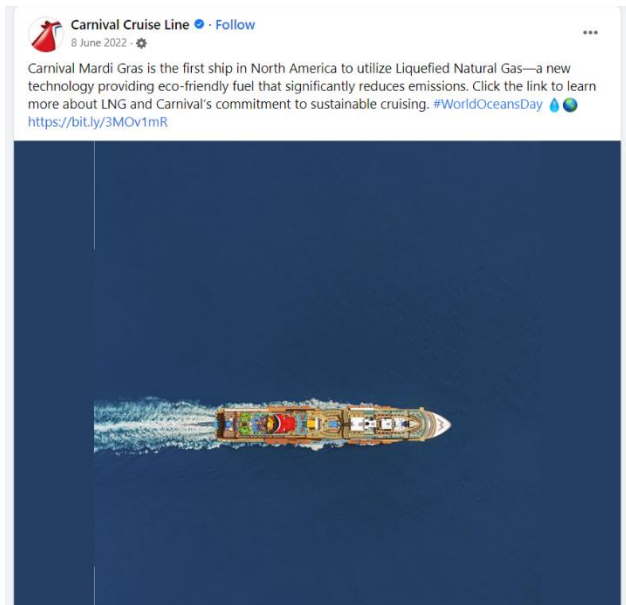


All the vacation fun you're looking forward to on Mardi Gras will be powered by Liquefied Natural Gas (LNG), one of the cleanest fuels in the world. Watch this video to learn more about how Carnival is leading the way in eco-friendly cruising with the first LNG-powered cruise ship in North America!

Screenshot taken from Carnival Cruise Line's sub-page 'Mardi Gras' on 31 August 2023.



Screenshot taken from Carnival Cruise Line's Facebook account on 31 August 2023.



Screenshot taken from Carnival Cruise Line's Facebook account on 31 August 2023.


AIDA CRUISES

Unternehmen +49 381 20 27 07 22 AIDA Hilfe myAIDA | AIDA Club

Willkommen bei AIDA Erlebnismvielfalt Reiseziele Schiffe **Buchen**

AIDAcosma & AIDAnova - unsere modernsten Kreuzfahrtschiffe


Erleben Sie jeden Tag eine neue Welt. Unser Mix macht es möglich: von Einzelkabinen bis hin zur Penthouse-Suite, von Spaß, Abenteuer und Erlebnis bis hin zu Fitness, Wellness und Relaxen. Lassen Sie sich kulinarisch verwöhnen und genießen Sie bestes Entertainment. Wussten Sie schon, dass AIDAcosma und AIDAnova vollständig mit emissionsarmen Flüssigerdgas (LNG) betrieben werden können.



Screenshot taken from AIDA Cruises' sub-page on its ships on 31 August 2023.

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Willkommen bei AIDA Erlebnismvielfalt Reiseziele Schiffe **Buchen**



AIDA Nachhaltigkeit

Screenshot taken from AIDA Cruises' sustainability sub-page on 31 August 2023.

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Willkommen bei AIDA Erlebnismvielfalt Reiseziele Schiffe **Buchen**

Die Liebe zum Meer ist tief in unserer DNA verankert und unser Antrieb in eine nachhaltige Zukunft. Bereits seit vielen Jahren arbeiten wir am Schutz der marinen Ökosysteme, einem sparsamen Umgang mit Ressourcen und an neuen, emissionsneutralen Antriebstechnologien – denn wir bekennen uns klar zu den Klimazielen der UN und der Europäischen Union. Dieser Kurs macht uns zum Vorreiter in der Kreuzfahrtbranche. Wir arbeiten mit unserer ganzen Innovationskraft an unserem langfristigen Ziel: der klimaneutralen Kreuzfahrt.

Auf dieser Seite

- 01 [Energieschub auf See: Batterie- und Brennstoffzellen-Technologien](#)
- 02 [Destinationsmanagement als Antrieb für die lokale Wirtschaft](#)
- 03 [Authentische Reiseerlebnisse mit lokalen Partnern](#)
- 04 [AIDA Cruise & Help: Wir tragen das Lächeln in die Welt](#)

Screenshot taken from AIDA Cruises' sustainability sub-page on 31 August 2023.


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Willkommen bei AIDA Erlebnismvielfalt Reiseziele Schiffe **Buchen**


Direkt zu unserem Nachhaltigkeitsbericht

Mission: Null Emission

Innovative Antriebstechnologien sind ein Schlüssel zu kontinuierlicher Energieeinsparung und Emissionssenkung, zu Ressourceneffizienz und konsequentem Klimaschutz. Mit AIDAnova und AIDAcosma sind aktuell zwei Kreuzfahrtschiffe unterwegs, die mit emissionsarmem Flüssigerdgas betrieben werden können. Gemeinsam mit Wissenschaft und Forschung arbeiten wir an klimafreundlichen Technologien, um unseren ökologischen Fußabdruck weiter zu reduzieren und bald das erste Zero-Emission-Schiff in Dienst stellen zu können.




**BRÜCKE IN DIE ZUKUNFT:
FLÜSSIGERD GAS LNG**



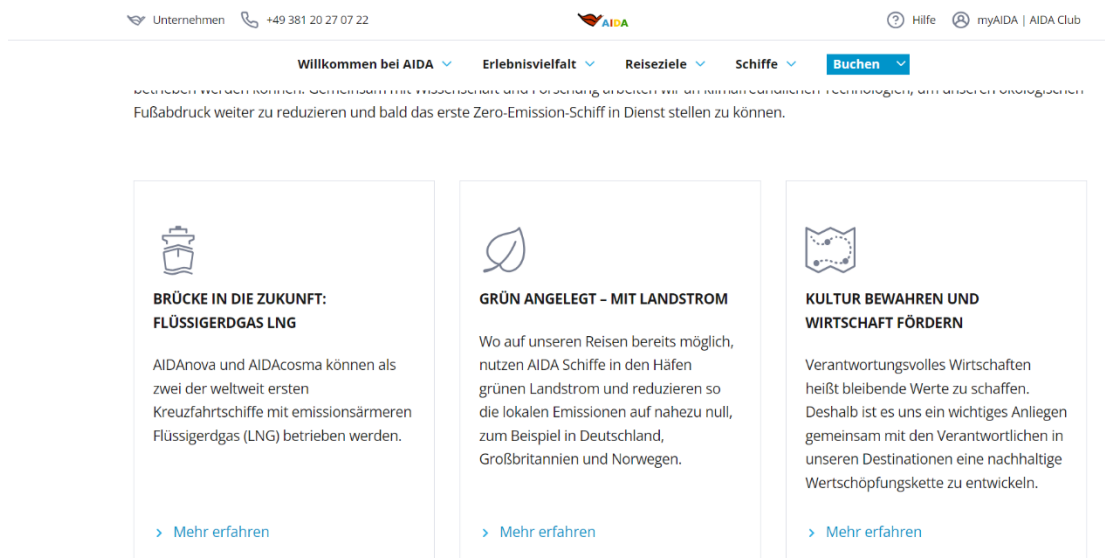
GRÜN ANGELEGT – MIT LANDSTROM

Wo auf unseren Reisen bereits möglich



**KULTUR BEWAHREN UND
WIRTSCHAFT FÖRDERN**

Screenshot taken from AIDA Cruises' sustainability sub-page on 31 August 2023.



Screenshot taken from AIDA Cruises' sustainability sub-page on 31 August 2023.



Screenshot taken from AIDA Cruises' sustainability sub-page 'Bridge into the future: liquefied natural gas LNG' on 31 August 2023.



Screenshot taken from AIDA Cruises' sustainability sub-page 'Bridge into the future: liquefied natural gas LNG' on 31 August 2023.

Mit AIDAnova haben wir 2018 das weltweit erste Kreuzfahrtschiff in Dienst gestellt, das vollständig mit emissionsarmem Flüssigerdgas (LNG) betrieben werden kann. Nach einem Jahr Betriebszeit haben wir eine positive Bilanz ziehen können: Die CO₂-Emissionen pro Person an Bord wurden durch die Nutzung von LNG und weitere Maßnahmen zur Senkung des Energieverbrauches um 55 Prozent im Vergleich zum Flottendurchschnitt von 2018 gesenkt.

Ende 2021 haben wir mit AIDAcosma das zweite LNG-Kreuzfahrtschiff in unserer Flotte begrüßt.

Die Nutzung von LNG ist für AIDA nur ein Zwischenschritt, denn der Beitrag von fossilem LNG zur Reduzierung von Treibhausgasemissionen ist begrenzt. Daher arbeiten wir in verschiedenen nationalen und EU-weiten Forschungsprojekten an der Entwicklung von emissionsfreien Antriebstechnologien.

SIE WOLLEN ES GENAUER WISSEN?

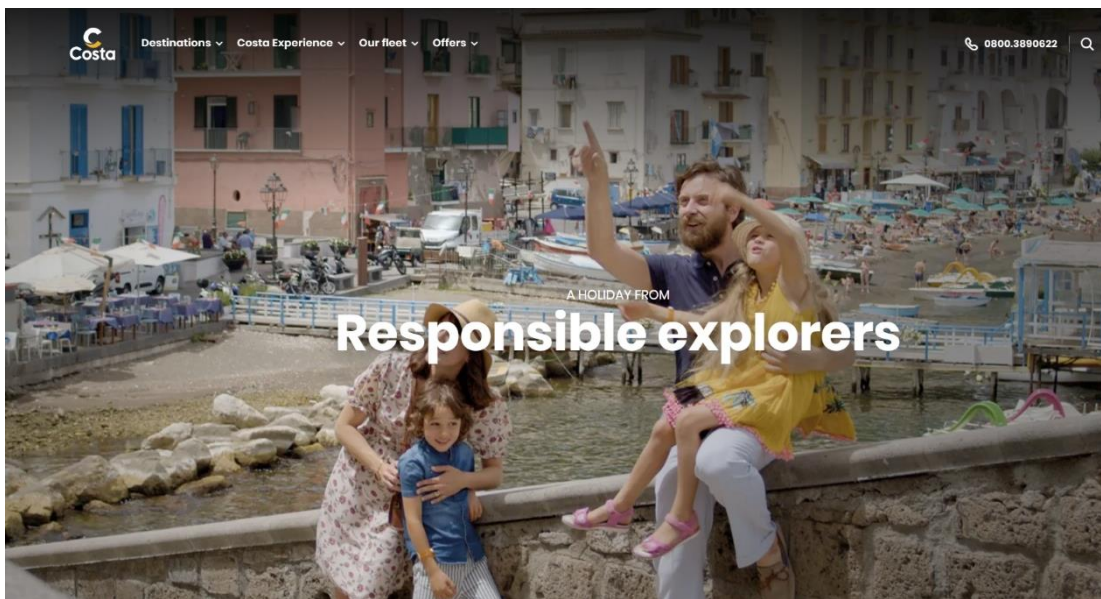
Mehr Infos über die Nutzung von Flüssigerdgas (LNG) finden Sie in unseren Nachhaltigkeitsberichten.

Screenshot taken from AIDA Cruises' sustainability sub-page 'Bridge into the future: liquefied natural gas LNG' on 31 August 2023.



Screenshot taken from AIDA Cruises' Facebook account on 31 August 2023.

COSTA CRUISES



Screenshot taken from Costa Cruises' 'Experience > Sustainability' sub-page on 31 August 2023.

Home — Travel with Costa — Sustainability

Even on holiday, we're looking out for the sea

Choosing a Costa cruise means experiencing a holiday that respects the environment and the local communities you'll meet each day in the destinations we explore.

What does it mean to be a responsible explorer? It means discovering new destinations in harmony with our surroundings, really getting to know the communities that live there, helping us to build a more equitable future for coming generations.



Sustainability on board means:



Differentiated waste collection



Less plastic




Careful water consumption



Technologically advanced ships


Screenshot taken from Costa Cruises' 'Experience > Sustainability' sub-page on 31 August 2023.

Protecting the sea is our priority




Resources, not waste

100% of the waste collected on board is separated and **sorted**. In this way, waste is managed with the utmost respect for the environment and becomes resources to be used for innovative projects in a circular economy.




Even less plastic on board

We have almost totally eliminated items of **disposable plastic**. We have also replaced single-dose samples, eliminating microplastics from products for cleaning, cosmetics and spa products.



Water, the most precious asset

Fresh water is a limited commodity, which is why **two-thirds of that used on board comes from the sea**: the water is desalinated and purified, making it perfect for use on board.



LNG fuelled ships

For Costa Smeralda and Costa Toscana we have chosen the **most innovative propulsion system in the cruise industry**. Liquefied natural gas (or LNG) is in fact the most advanced technology currently available, to guarantee the best environmental performance, reducing emissions.


Screenshot taken from Costa Cruises' 'Experience > Sustainability' sub-page on 31 August 2023.


SUSTAINABILITY

Route to the future

We are working on many projects, events and partnerships.

[Go to the website →](#)





COSTA CRUISES FOUNDATION

Happiness is for everyone

Screenshot taken from Costa Cruises' 'Experience > Sustainability' sub-page on 31 August 2023.

The art of experiencing the sea

A holiday on Costa Toscana, our new flagship, will be unforgettable.

Shows and entertainment featuring international artists await you, as well as swimming pools with slides and water games for all ages, a beautiful spa and gym, and so much more.

On our new Costa Toscana you'll be spoilt with excellent gastronomy, with the widest variety of Italian and international [restaurants in the fleet](#).

And that's not all – Costa Toscana keeps the environment in mind, and has new LNG propulsion engines for increasingly sustainable travelling.



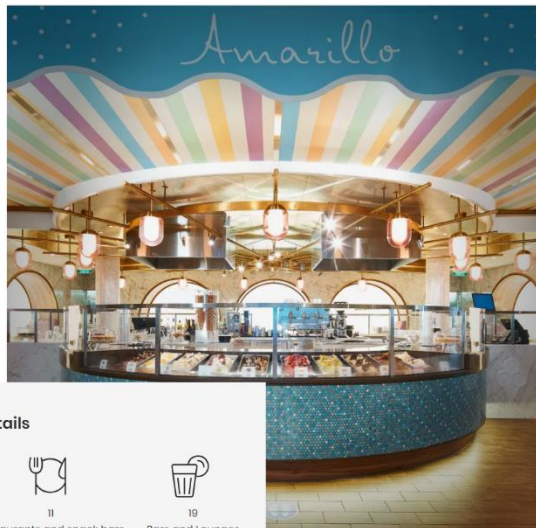
Screenshot taken from Costa Cruises' sub-page 'Costa Toscana' on 31 August 2023.

Welcome on board Costa Smeralda

Costa Smeralda is synonymous with the Italian dolce vita: it is being carefree, it is the breeze ruffling your hair, and it is always overlooking the sea.

You'll be treated to new performances and shows each night, an aqua park on the highest deck of the ship, a next-generation spa and gym and so much more.

Costa Smeralda cares for the environment, paving the way for responsible innovation and increasingly sustainable cruise travel.



The ship's details



1,550
Balcony Cabins



13
Swimming pools and hot tubs

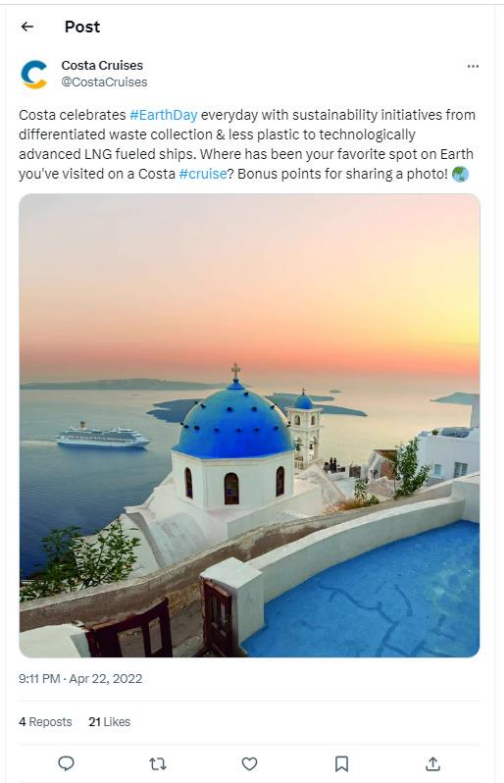


11
Restaurants and snack bars



19
Bars and Lounges

Screenshot taken from Costa Cruises' sub-page 'Costa Smeralda' on 31 August 2023.



Screenshot taken from Costa Cruises' X account on 31 August 2023.



Screenshot taken from Costa Cruises' X account on 31 August 2023.



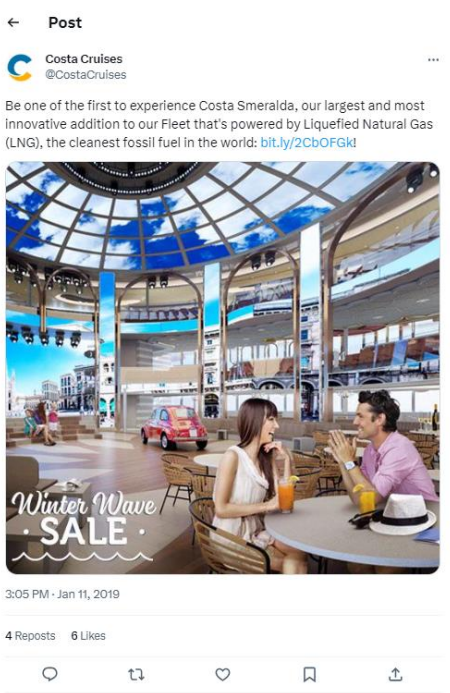
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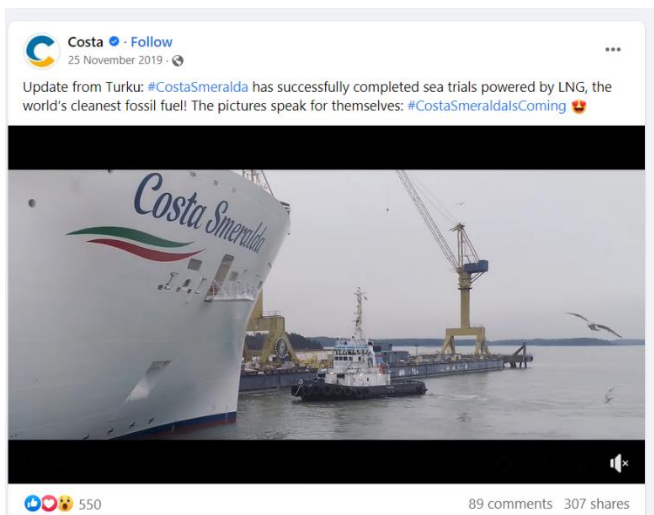
Screenshot taken from Costa Cruises' X account on 31 August 2023.



Screenshot taken from Costa Cruises' X account on 31 August 2023.



Screenshot taken from Costa Cruises' Facebook account on 31 August 2023.

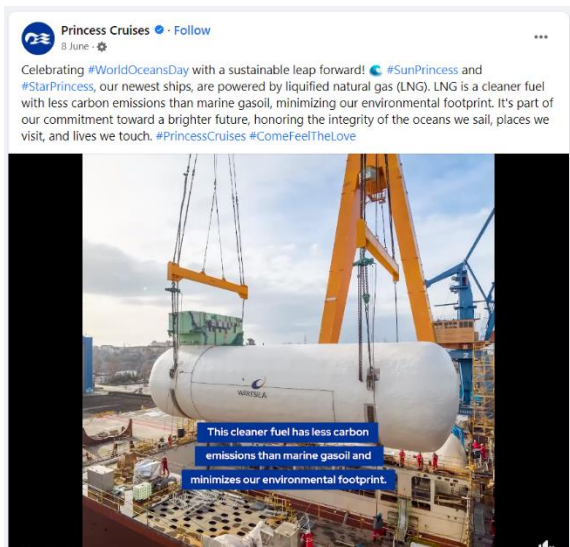


Screenshot taken from Costa Cruises' Facebook account on 31 August 2023.



Screenshot taken from Costa Cruises' Facebook account on 31 August 2023.

PRINCESS CRUISES



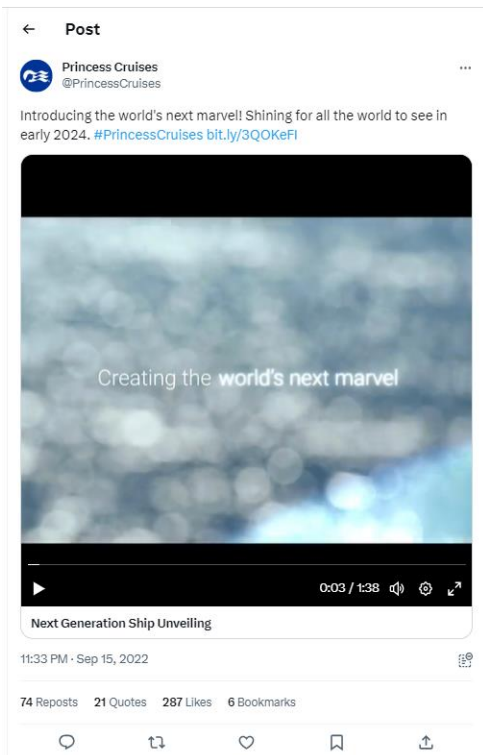
Screenshot taken from Princess Cruises' Facebook account on 31 August 2023.



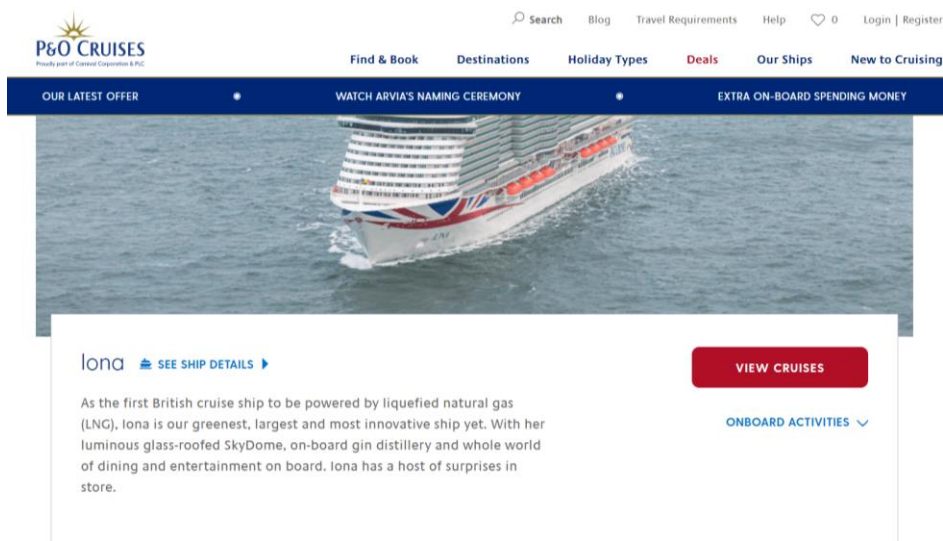
Screenshot taken from Princess Cruises' Facebook account on 31 August 2023.



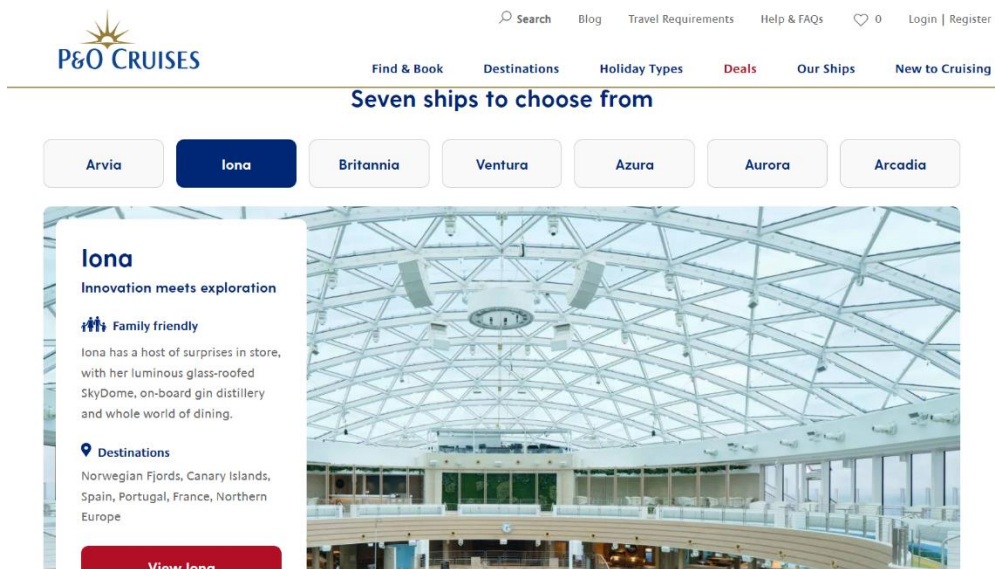
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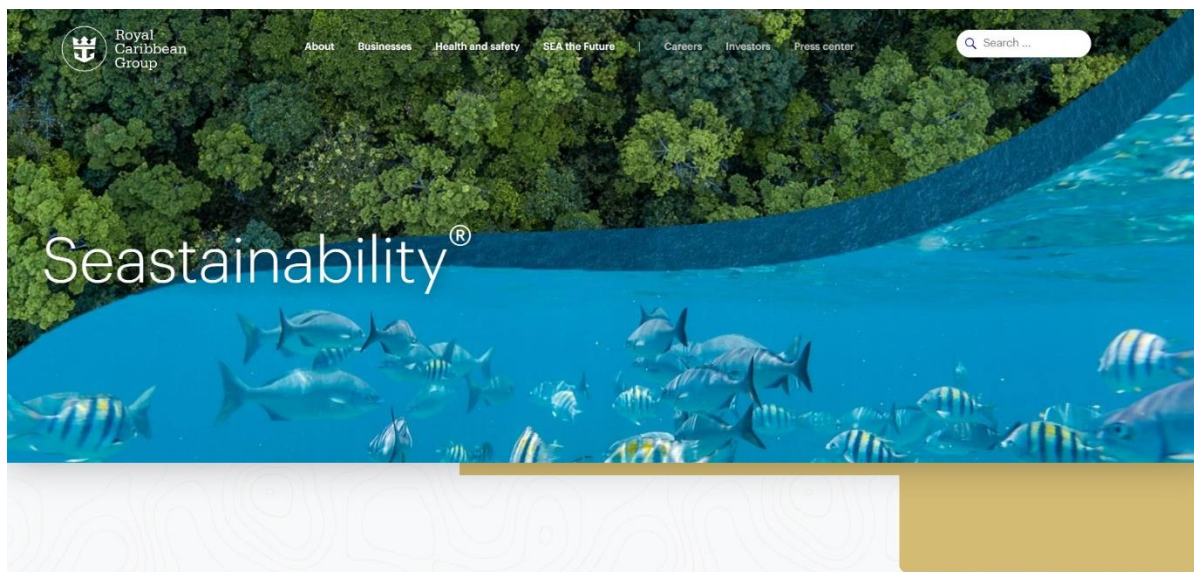


Screenshot taken from P&O Cruises' 'Ships' sub-page on its website on 23 March 2023.

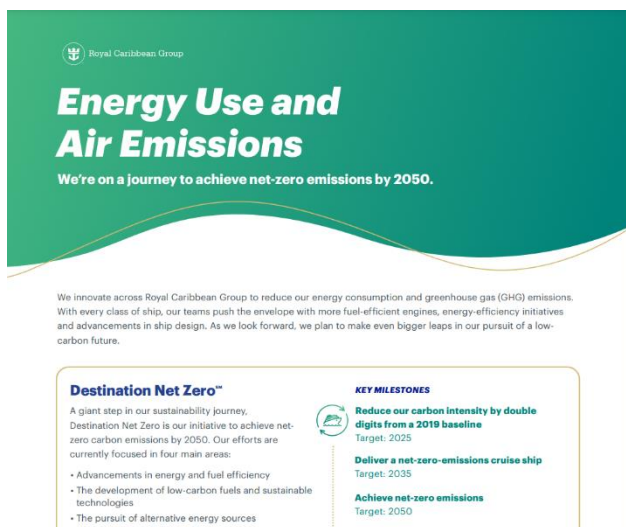


Screenshot taken from P&O Cruises' 'Ships' sub-page on its website on 31 August 2023.

ROYAL CARIBBEAN GROUP



Screenshot taken from Royal Caribbean Group's sustainability sub-page on 31 August 2023.



Screenshot taken from Royal Caribbean Group's Factsheet on 'Energy Use and Air Emissions' downloaded on its sustainability sub-page on 31 August 2023.

Real-time artificial intelligence to assess weather and currents and optimize timing, route, speed and distances traveled

Variable Frequency Drive Installations to optimize our ships' power consumption

Alternative Fuels and Energy Sources

We actively research and assess progress on technologies such as solar and wind power, biofuels, natural gas, fuel cells, biomass and shore power to determine their efficiencies and viability for the future.

<p>Ready for Liquefied Natural Gas</p> <p>In 2022, we finalized the supply chain for our first three liquefied natural gas (LNG)-powered ships: Silversea's <i>Silver Nova</i>, which debuts in 2023, and Royal Caribbean International's <i>Icon of the Seas</i> and <i>Utopia of the Seas</i>, both debuting in 2024.</p>	<p>First Renewable Diesel-Powered Ship</p> <p>In late 2022, Royal Caribbean International's <i>Navigator of the Seas</i> became the first major cruise ship to sail from a U.S. port using renewable diesel to meet part of its fuel needs.</p>	<p>20 Ships</p> <p>20 Royal Caribbean Group ships were equipped to use shore power by the end of 2022, with additional retrofits on the way as more ports add shore power capabilities. All new builds will have shore power connections. This includes ships owned by our joint ventures.</p>	<p>World's First Net-Zero Cruise Terminal</p> <p>Our Port of Galveston terminal, which opened in late 2022, is the first cruise terminal in the world to generate 100% of its needed energy through onsite solar power.</p>
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2022 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT ENERGY USE AND AIR EMISSIONS FACT SHEET 2

Screenshot taken from Royal Caribbean Group's Factsheet on 'Energy Use and Air Emissions' downloaded on its sustainability sub-page on 31 August 2023.

Transitioning to Low-Carbon Fuels

We're advancing a multi-phase strategy to move away from heavy fuel oil for new ships in favor of lower-carbon alternatives, many of which are still in the development phase. Our immediate strategy is transitioning new ship builds to LNG, the cleanest-burning fossil fuel currently available. Longer term, we're partnering with governments, suppliers, shipyards and other stakeholders to develop alternative and accessible fuels and technologies.

Collaborating on Green Shipping Corridors

To help address the supply chain challenges of low- or zero-carbon fuels, we're working with a broad coalition of cruise operations, ports, industry trade associations and maritime forums to explore the development of green corridors. These are maritime routes where zero GHG emission solutions are supported and enabled through technological, economic and regulatory collaboration.

Pursuing Shore Power

We are committed to improving air quality and reducing GHG emissions by enabling shore power as an alternative energy source for our ships. Cruise ships traditionally run off their diesel auxiliary engines while at port. Shore power allows cruise ships to "plug in" to electricity at the port, so that the engines do not need to operate when the ship is embarking and disembarking passengers or loading supplies. Depending on the location and regional energy mix, local power grids may use a mix of renewable energy sources in addition to fossil fuels, reducing our emissions.

LEED Zero Energy Certifications

In addition to pursuing net-zero cruise ships, we're also pursuing LEED Zero Energy certification for some of our shoreside operations. This includes the use of onsite renewable energy at select locations.

69%

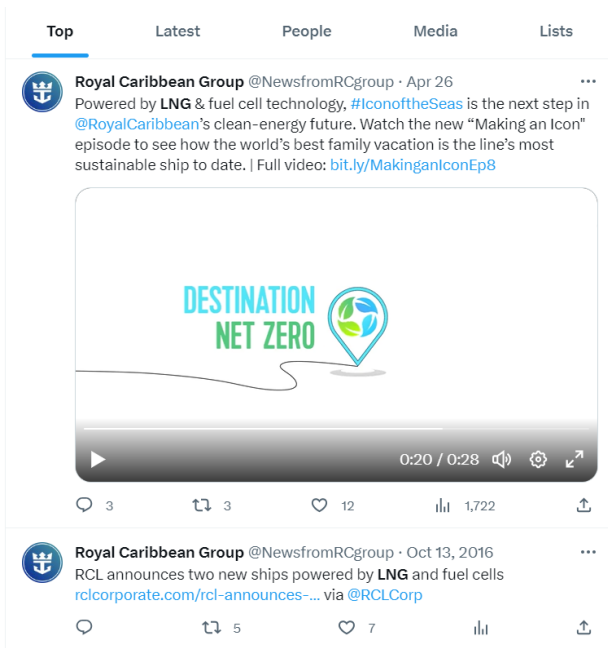
69% of our ships are equipped with Advanced Emissions Purification systems, which remove roughly 98% of sulfur dioxides from our ships' exhaust.

92%

Currently, 48 of the 52 ships from our wholly owned brands are certified ISO 50001 for energy management.

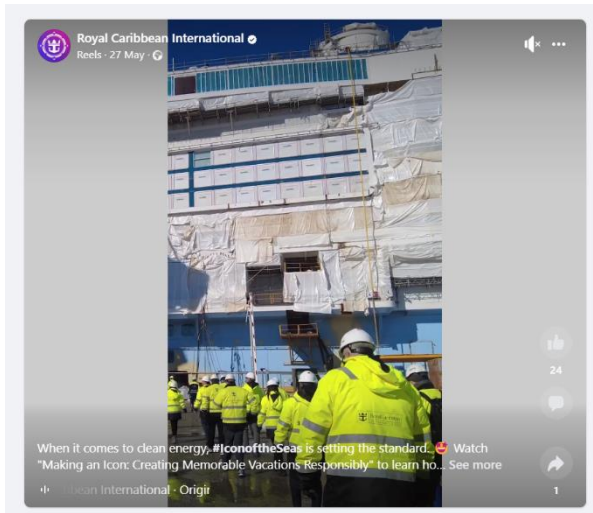
Reducing Emissions with Abatement Technologies

Screenshot taken from Royal Caribbean Group's Factsheet on 'Energy Use and Air Emissions' downloaded on its sustainability sub-page on 31 August 2023.

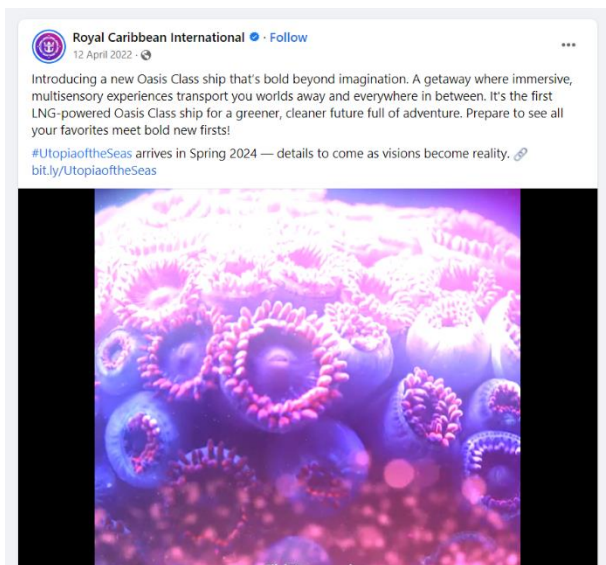


Screenshot taken from Royal Caribbean Group's X account on 31 August 2023.

ROYAL CARIBBEAN INTERNATIONAL



Screenshot taken from Royal Caribbean International's Facebook account on 31 August 2023.



Screenshot taken from Royal Caribbean International's Facebook account on 31 August 2023.

SILVERSEA CRUISES

In addition to five ultra-luxury expedition ships, Silversea counts six classic vessels in its fleet. Among the most comfortable and spacious ships at sea, each of the cruise line's ships enjoys an atmosphere of elegance, conviviality, and whispered luxury. Silversea has recently welcomed four ships to its fleet since June 2020 – *Silver Origin*, *Silver Moon* and *Silver Dawn*, *Silver Endeavour* – bringing the fleet's tally to 11.

Silversea Cruises continues to innovate in the ultra-luxury and expedition cruise industries. The launch of *Silver Moon* in October 2020 marked the introduction of Silversea's groundbreaking [S.A.L.T. culinary programme](#). S.A.L.T. enables travellers to dive deep into the world's richest culinary cultures, taking regional food and drink as lenses through which guests can engage with the soul of a destination. Aboard *Silver Dawn*, which joined the fleet in November 2021, guests enjoy the [Otium wellness programme](#)—an indulgent innovation in wellness at sea, which, inspired by the Roman lifestyle, focuses on pampering and pleasure over sacrifice and delayed gratification.

In July 2022, Silversea welcomed *Silver Endeavour* to its fleet—the world's most luxurious expedition ship, designed specifically to take travellers to the world's most remote destinations, including both Polar Regions. Complete with state of the art amenities and the highest space-to-guest ratio in expedition cruising, *Silver Endeavour* strengthens Silversea's position as the leading ultra-luxury expedition cruise line, broadening the industry's most diverse polar offering.

Building on the ongoing sustainability efforts of the Group, Silversea will take delivery of two Nova-class ships - *Silver Nova* and *Silver Ray* - in 2023 and 2024, respectively, pushing boundaries in sustainable cruise travel, with pioneering technology that will reduce the ships' carbon footprints. 'Project Evolution' will be the first cruise ship to use fuel cells to provide 100% of power while at port. It will operate using a trio of power sources, including a fuel cell system, battery technology, and dual-fuel engines that use liquefied natural gas (LNG) as the main fuel.

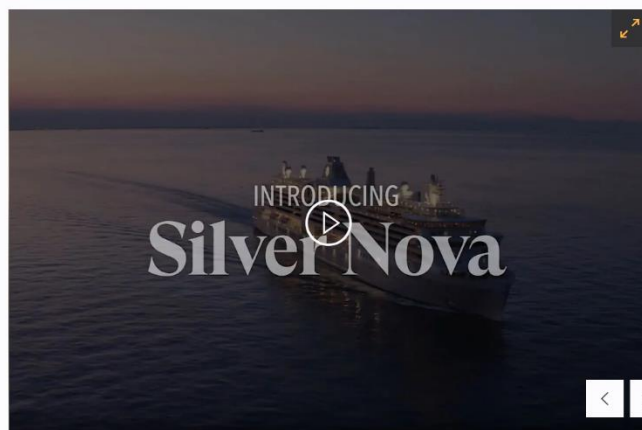
Silversea's largest office is in Miami, at the Royal Caribbean Group Headquarters. The brand also maintains offices in Monaco, the United Kingdom, Germany, and Australia.

To find out more about our corporate and investor relations, please click [here](#).

Screenshot taken from Silversea Cruises 'About Us' sub-page on 31 August 2023.

Silver Nova is more than a new ship by Silversea, it is a Nova way of luxury travel.

Introducing *Silver Nova* – the twelfth ship to join our fleet. Our newest vessel will join us in summer 2023, and will be a home away from home for up to 728 guests. *Silver Nova's* innovative asymmetrical design introduces the world like never before, offering an immersive destination experience to our guests. With a gross tonnage of 54,700 tons she will offer a space-to-guest ratio of 75 GRT-per-passenger becoming one of the most spacious cruise ships ever built. What's more, *Silver Nova* will be our most environmentally friendly, and thanks to her groundbreaking technological solutions, she will propel Silversea into a new era of sustainable cruising. It's the Nova way to travel.



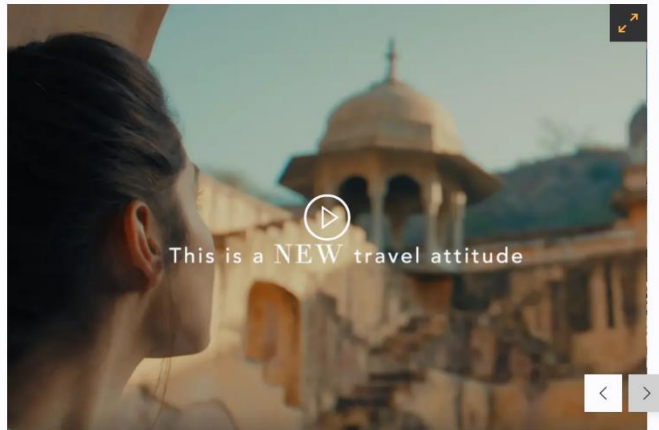
Introducing Silver Nova

1 of 20

Screenshot taken from Silversea Cruises 'Silver Nova' sub-page on 31 August 2023.

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Silver Nova - A New Travel Attitude

2 of 20

Screenshot taken from Silversea Cruises 'Silver Nova' sub-page on 31 August 2023.




THIS IS SILVERSEA, THE NOVA WAY

Optimising a new vision of luxury, *Silver Nova* revolutionises 21st-century travel. Our latest flagship will lead our fleet into sustainable cruising, respecting the fragile ecosystems of the remote and remarkable destinations we visit. The ship's pioneering architecture offers a brand new suite experience, including aft suites that deliver stunning 270° views. Onboard the *Silversea*, hallmarks are taken to the next level: butler service for every suite, exceptionally high crew-to-guest ratio (1:1.3) and outstanding gastronomy. Welcome to the Nova way of travelling.

[DISCOVER MORE](#) →

Screenshot taken from Silversea Cruises 'Silver Nova' sub-page on 31 August 2023.

DESTINATIONS CRUISES WHY SILVER NOVA FLYER VIDEO STORIES



This is more than exploring places. This is a NEW way of respecting them.

Sustainability Credentials

With *Silver Nova*, we're introducing a new way of looking at sailing, at the environment, at the ocean itself. Thanks to her state-of-the-art technologies, *Silver Nova* is one of the most sustainable cruise ships ever built: a true reflection of our deep commitment to the oceans, the environment and the communities we find at each of our splendid destinations.

Screenshot taken from Silversea Cruises 'Silver Nova' sub-page on 31 August 2023.

MSC Cruises



Can cruising be more environmentally responsible?

At MSC Cruises we believe it can be. From introducing the cleanest marine fuel available on our latest ships to our state-of-the-art water treatment facilities, we're putting environmental responsibility at the heart of everything we do. To preserve the sea we call home, and change cruising for good.

Our new cruise ships are pushing the boundaries of what's possible at sea. From cleaner technologies to innovative restaurant concepts, our growing fleet is a statement of our commitment to the future of this planet.

Discover the Future of Cruising with MSC Cruises

DISCOVER MORE

ALWAYS INCLUDED IN OUR CRUISES

Screenshot taken from MSC Cruises' webpage on 31 August 2023.

REDUCING EMISSIONS

Our new ships are powered by Liquefied Natural Gas (LNG), the cleanest marine fuel available at scale today, reducing CO₂e emissions by up to 20% and virtually eliminating sulphur oxides and fine particles, while reducing nitrogen oxides by up to 85%.

WATER IS PRECIOUS

Over 80% of our freshwater is produced on board from desalinated seawater - up to 3 million litres per ship every day! Advanced wastewater treatment systems purify all water consumed.

LOWERING NOISE

Our latest low-noise propellers and innovative hull designs reduce impacts on marine life and enhance Guest and Crew comfort.

ENERGY EFFICIENCY

Smart heating, ventilation & cooling systems, plus long-lasting LED lighting have contributed to reducing fleet carbon intensity by 34% since 2008.

WASTE NOT WASTED

We keep waste to a minimum and separate paper, aluminium, glass, plastic and other recyclables for delivery to specialist port recycling facilities.

ENVIRONMENTALLY RESPONSIBLE EXCURSIONS

We provide a wide variety of excursions offering low-impact travel or opportunities to help the environment, like our Save a Turtle Tour experience in Cozumel.

Screenshot taken from MSC Cruises' 'Discover the Future of Cruising' sub-page on 31 August 2023.

WHAT DOES THE FUTURE OF CRUISING LOOK LIKE?

Can cruising be more environmentally responsible?



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Discover the Future of Cruising with MSC Cruises.

[Find your next cruise](#)

Screenshot taken from MSC Cruises' 'Discover the Future of Cruising' sub-page on 31 August 2023.

An aerial view of a ship's wake in the ocean. The water is a deep blue, and the wake is a white, frothy trail that stretches from the foreground towards the horizon. The sky is a pale blue with a few wispy clouds.

A circular icon with a downward-pointing arrow and the text "CO2e" below it, representing carbon dioxide equivalent emissions.

IS THERE A FUEL THAT CAN POWER CHANGE?

Cruising is changing for good. Our new ships are **powered by LNG (Liquefied Natural Gas)**, a cleaner alternative to traditional marine fuels. In fact, it's the cleanest fuel available at the required scale. Not only does it release fewer harmful emissions, it is also more efficient - and is one more step on our journey to a more environmentally responsible future.

Thanks to LNG power we are able to reduce **CO2e emissions by up to 20%** and virtually eliminate sulphur oxides and fine particles, while reducing nitrogen oxides by up to 85%.

[Discover more](#)

Screenshot taken from MSC Cruises' 'Discover the Future of Cruising' sub-page on 31 August 2023.

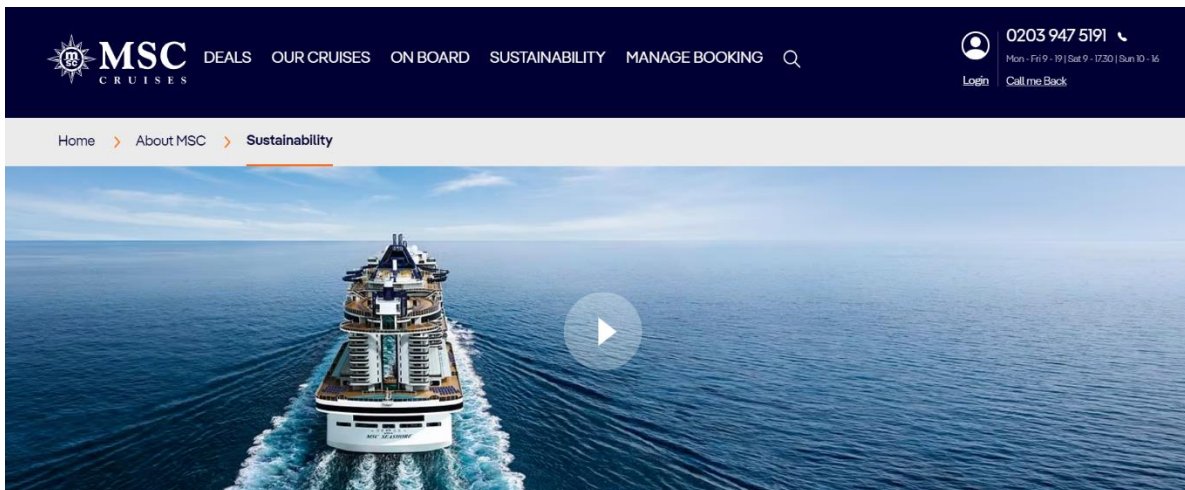
NET-ZERO EMISSIONS BY 2050 – ROADMAP

We recognize that there is always more that can be done and we are constantly challenging ourselves to do better. That's why we are determined to reach **net-zero emissions by 2050**, achieving an overall balance between greenhouse gas emissions (GHGs) emitted and greenhouse gases taken out of the atmosphere or avoided through the production of renewable fuels. To accomplish this goal, we will implement various measures, such as transitioning to renewable fuels, adopting energy-efficient technologies, and optimizing operational practices. For instance, producing and using renewable fuels can significantly reduce overall lifecycle emissions when compared to fossil fuels in a number of ways. One example is the prevention of emissions from agricultural and municipal wastes that can instead be used to produce biofuels, or even by capturing carbon for use in synthetic fuels.



ARE YOU READY TO DISCOVER THE FUTURE OF CRUISING?

Screenshot taken from MSC Cruises' 'Discover the Future of Cruising' sub-page on 31 August 2023.



THE FUTURE OF CRUISING

Screenshot taken from MSC Cruises' sustainability sub-page on 31 August 2023.

THE FUTURE OF CRUISING

Committed to promoting responsible travel and tourism.

“Our goal is clear: for MSC Cruises marine operations to be net zero emissions by 2050.”

PIERFRANCESCO VAGO
Executive Chairman

Our responsibility: sustainability

Being family-owned means we can invest in the long term,
preserving the planet and its oceans for future generations.

Ensuring we travel the oceans with the utmost care,
while respecting the coastal communities we visit.

SUSTAINABILITY REPORTS

At MSC Cruises, sustainability is not just a buzzword but a long term business commitment.

Browse our Sustainability reports to understand more about what we do.


Screenshot taken from MSC Cruises' sustainability sub-page on 31 August 2023.

Our journey towards sustainable cruises is organised around four key pillars: Planet, People, Place and Procurement. This translates into a drive to continuously improve our fleet's environmental performance; caring for all employees and promoting diversity and inclusion; working to ensure that our impact on the coastal communities that we reach remains positive; and responsibly sourcing the products and services that we purchase.

PLANET

We are fully committed to playing our part in addressing climate change and promoting ocean biodiversity. We are determined to accelerate our transition toward **net zero emissions by 2050**. We work closely with leading technology companies, shipyards, and fuel providers to push the boundaries of what is possible.

[Read more](#)



Screenshot taken from MSC Cruises' sustainability sub-page on 31 August 2023.


PLANET

At MSC Cruises we believe cruising can be sustainable. From introducing **cleaner fuels** across our fleet to **producing freshwater on board**, we are pushing the boundaries of what is possible at sea. Our growing fleet is a statement of our commitment to **the future of this planet**.

Decarbonising our marine operations is a core element of our sustainability strategy. To demonstrate our commitment to this we have in place an ambitious goal of **net zero greenhouse gas emissions by 2050**, which goes further than the current IMO (International Maritime Organization) ambition of 50% reduction in greenhouse gases by 2050.

Reducing Carbon Intensity

Waiting for www.rWe currently estimate that we will meet the IMO (International Maritime




Screenshot taken from MSC Cruises' sustainability sub-page 'Planet' on 31 August 2023.

Leading the energy transition

New technology and low carbon fuels are fundamental to our carbon reduction strategy. In June 2023 we will deliver **MSC Euribia**, one of our latest ships and one of the most environmentally-advance ships at sea. MSC Euribia is powered by liquefied natural gas (LNG). LNG enables us to reduce greenhouse gas CO₂e emissions by up to 20% and virtually eliminate sulphur oxides and fine particulates, while reducing nitrogen oxides by up to 85%. Our next ship powered by LNG will be MSC World America (2025).

We are also collaborating with technology and energy providers to support and test innovative technologies and deploy renewable fuels to further reduce our emissions.



Screenshot taken from MSC Cruises' sustainability sub-page 'Planet' on 31 August 2023.



LNG-powered ship

- LNG will virtually eliminate sulphur oxides (SOx) and particulates, and reduce nitrogen oxides (NOx) by 85%
- The elimination of SOx from the fuel means EGCS (scrubbers) will not be required
- LNG will reduce emissions of greenhouse gases by up to 20%
- The hull of the ship (the part below the water) is coated with special paints to reduce the growth of organisms, reducing drag and maintaining efficiency through the water

Screenshot taken from MSC Cruises' sub-page 'MSC Euribia' on 31 August 2023.



A world where Sustainability meets technology

Experience a world of sustainable cruising on a ship that is designed for immersive and unique experiences at sea. Powered by LNG, one of the world's cleanest marine fuels available at scale, MSC World America symbolizes a new world of cruising and features the very latest technologies to minimise the impact on the environment.

With a trailblazing design and striking futuristic silhouette, the guest experience on board is next-level.

[See the Sustainability infographic](#)

Screenshot taken from MSC Cruises' sub-page 'MSC World America' on 31 August 2023.

MAIN FEATURES



A more sustainable cruise

MSC World Europa was made with the future in mind. We wanted to set a new standard for the cruise industry.

As our first LNG-propelled new cruise ship, MSC World Europa is a huge step forward in that mission. This next-generation power hugely reduces emissions and marks a milestone on our journey to zero emissions operations.

Her state-of-the-art design also includes the latest water recycling technology, to purify wastewater, and propellers studied to reduce the underwater noise in respect of marine wildlife.

Screenshot taken from MSC Cruises' sub-page 'MSC World Europa' on 31 August 2023.



Screenshot taken from MSC Cruises' X account on 31 August 2023.



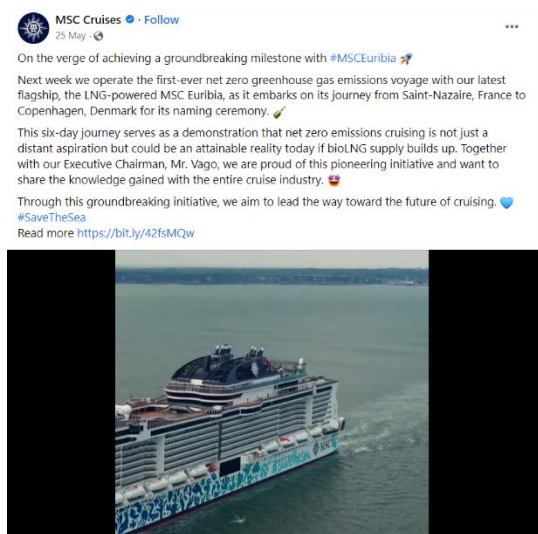
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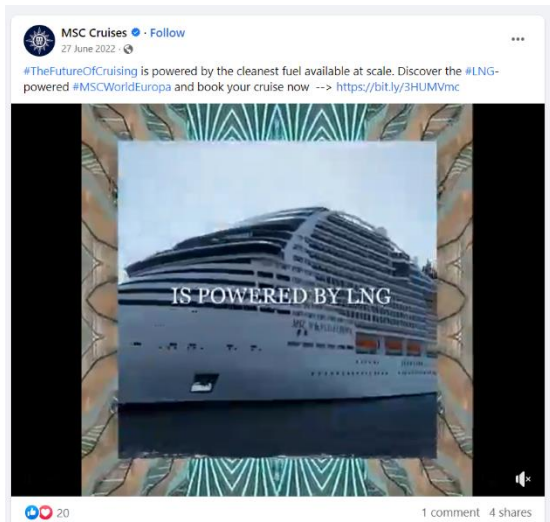
Screenshot taken from MSC Cruises' Facebook account on 31 August 2023.



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