CHIL-2673

REBUILT

RESULT 3 – A1 –

Company Name:	Chillax Yachting MCPY
Professional sector and company size:	Maritime Company for Pleasure Yachts
Need/problem/challenge addressed:	Sustainable Charter Practices/Eco-Friendly Itineraries Waste Reduction and Recycling:
Sort presentation of the company:	Established in 2019 and based in the waters of Greece, Chillax Yachting is a premier yacht charter company committed to delivering maritime experiences. Specializing in exclusive charters company's goal is to provide charters for any occasion
Initial Process and CO2 Emission Profile (tools, methodologies, theories, references):	• **Initial Business Practice:** In the initial stages of our operations, Chillax Yachting utilized a motor yacht equipped with two marine engines, each boasting a power output of 740 horsepower, using diesel as burned fuel. The fuel consumption and subsequent carbon emissions were significant considerations, prompting a detailed analysis of the emission profile associated with the yacht's operation. • **Tools, Methodologies, and References:** To quantify the CO2 emissions accurately, we relied on data and methodologies endorsed by the International Energy Agency (IEA), a reputable international organization providing comprehensive energy statistics and analysis. The IEA's guidelines and emission factors were utilized as a benchmark for our calculations. • **Motor Yacht Specifications:** The motor yacht, equipped with two 740 HP marine engines, operated on diesel fuel during this initial period. The fuel consumption rate is approximately 200lt/h**.** **CO2 Emission Profile Calculation:** The calculation of the CO2 emission profile involved multiplying the fuel consumption rate per hour by the carbon emission factor for diesel fuel, which is typically around 2.68 kg/L. (recommended by IEA): **CO2 Emissions per Hour=Fuel Consumption Rate × Carbon Emission Factor** Given the numbers above. So the COS emission per yacht's operating hour is 2 (as there are two machines) X 200lt X 2.68 kg/lt = 1072 kg. Moreover a weekly charter includes approximately 180 nautical miles (8,6 hours machine operating hours), **so a weekly charter's CO2 emission** is approximately 8,6hX 1072 kg/h =**9.189 kg**
Strategic Decision of the company:	In pursuit of our commitment to environmental sustainability and minimizing our carbon footprint, Chillax Yachting has made a strategic decision to transition from motor yachts to sailing yachts for our charter operations. This decision reflects a holistic approach to new process

	management and aligns with our dedication to responsible and eco-friendly maritime practices. *Key Elements of the Strategic Decision:* • **Reduced Horsepower and Fuel Consumption:** Sailing yachts inherently have significantly lower horsepower marine engines compared to motor yachts. This strategic shift directly translates to a substantial reduction in fuel consumption, leading to a marked decrease in carbon emissions during charters**.** • **Leveraging Wind Power:** Sailing yachts utilize wind power for propulsion, capitalizing on the abundant wind resources in the Greek sailing areas. Approximately 80% of the itinerary, covering substantial distances, is now navigated using the power of the wind. This results in a considerable reduction in the reliance on motorized propulsion systems. This strategic shift significantly influenced and reduce the main rates and factors of CO2 Emission
Process reengineering on selected waste (resources, methodologies, tools):	Chillax Yachting has undertaken a comprehensive process reengineering initiative focused on minimizing, not only CO2 emission but also waste generated during charters, with a specific emphasis on waste reduction and recycling. This innovative approach involves multiple facets. **1. CO2 emission reductions:** Although Chillax has made a shift to sailing yacht reducing CO2 Emission continuously applies environmental processes against CO2 emission • **Sentinel Telemetry System:** Installation of the Sentinel telemetry system for remote vessel monitoring, ensuring that the vessel's speed remains below 2000 rpm to optimize fuel efficiency and minimize CO2 emissions**.** • **Client Education and Speed Management:** Client education programs to discourage high-speed requests, encouraging responsible speed practices for fuel efficiency. • **Promotion of Sailing Experience:** Encouraging guests to become familiar with sailing, providing sailing tutorials, and promoting the enjoyment of destinations at a more leisurely pace **Resources Involved:** Technical team, Crew training on system usage. Educational materials, Sailing instructors. **Tools Used:** Sentinel telemetry system, Crew training materials, educational brochures, sailing training materials, onboard demonstrations. **2. Waste Segregation and Recycling** • **Recycling Bin Placement and Signage**: Strategic placement of recycling bins in accessible areas, clear signage for waste segregation. • **Recycling Education and Awareness:** Conducting briefings and educational sessions for guests on responsible waste disposal practices. • **Recycling Volume Monitoring: Regular monitoring of waste generation and recycling volumes.** • **Eco-Friendly Products Implementation:** Adoption of reusable shampoo containers, eco-friendly straws, and other sustainable alternatives.

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Water Abundance through Desalination: Utilization of a desalination system for abundant freshwater production, eliminating the need for guests to purchase single-use plastic water bottles.
Resources Involved: Procurement team, crew education on eco-friendly products, data analysts, onboard waste management team, educational materials for guests,
Tools Used: Visual communication tools, eco-friendly material for signage, specialized recycling bins, onboard, periodic waste audits, advanced desalination technology, procurement guidelines emphasizing sustainability, crew training programs
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<tr><td>Re-engineering outcome and results. Emission profile improvement and other success evidence:</td><td>
Emission Profile Improvement:
Chillax Yachting's re-engineering efforts have yielded a significant reduction in the carbon emission profile associated with our yacht charters. The application of new processes and sustainable practices has resulted in a noteworthy decrease in CO2 emissions.
The adoption of sailing yachts, utilization of wind power, and the implementation of eco-friendly measures have collectively contributed to a more environmentally friendly operation.
The comparison between a Motor Yach and a Sailing Yacht is comprehensively explained as follow , for
Weekly charter: 180 nautical Miles
Carbon Emission Factor for diesel (kg/l):2.68 kg
Sailing Yacht – Percentage using engine:20%
Sailing Yacht weekly charter nautical miles using engine:36 hours
<table>
<tr><th colspan="4">Motor Yacht</th></tr>
<tr><td>Operating Hours</td><td>8,6</td><td>Carbon Emissions per Hour per machine</td><td>536</td></tr>
<tr><td>Cruise speed</td><td>21</td><td>Carbon Emissions per Hour per yacht</td><td>1.072</td></tr>
<tr><td>Fuel Consumption Rate (FCR)(L/h):</td><td>200</td><td>Emission per weekly charter (kg)</td><td>9.189</td></tr>
<tr><th colspan="4">Sailing yacht</th></tr>
<tr><td>Operating Hours</td><td>5,1</td><td>Carbon Emissions per Hour per machine</td><td>26.8</td></tr>
<tr><td>Cruise speed</td><td>7</td><td>Carbon Emissions per Hour per yacht</td><td>53.6</td></tr>
<tr><td>Fuel Consumption Rate (FCR)(L/h):</td><td>10</td><td>Emission per weekly charter (kg)</td><td>275,66</td></tr>
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Quantifiable Emission Reductions: The sailing yacht demonstrates an 97% reduction in carbon emissions compared to the motor yacht for the same charter distance. This quantifiable improvement showcases the effectiveness of our re-engineering efforts in minimizing environmental impact.
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Please identify the sustainability goals (SDGs) and the specific targets achieved in the described case:	Chillax Yachting's commitment to environmental sustainability aligns with several United Nations Sustainable Development Goals (SDGs). The specific targets achieved through our best practices in yacht charters include: • **SDG 7: Affordable and Clean Energy:** Target Achieved: Integration of solar panels and a focus on wind-powered sailing methods contribute to the generation of clean and renewable energy for onboard operations. • **SDG 12: Responsible Consumption and Production:** Target Achieved: Introduction of waste segregation and recycling systems, efficient water management, and sustainable practices promote responsible consumption and production within the yacht charter industry. • **SDG 13: Climate Action:** Target Achieved: Substantial reduction in carbon emissions through the operation of sailing yachts, the use of renewable energy sources, and the incorporation of wind-powered sailing methods. • **SDG 14: Life Below Water:** Target Achieved: Implementation of eco-friendly charters with reduced environmental impact contributes to the preservation of marine ecosystems, supporting the goal of life below water. • **SDG 15: Life on Land:** Target Achieved: Sustainable practices reduce the environmental impact on coastal and island ecosystems, aligning with the goal of promoting life on land.