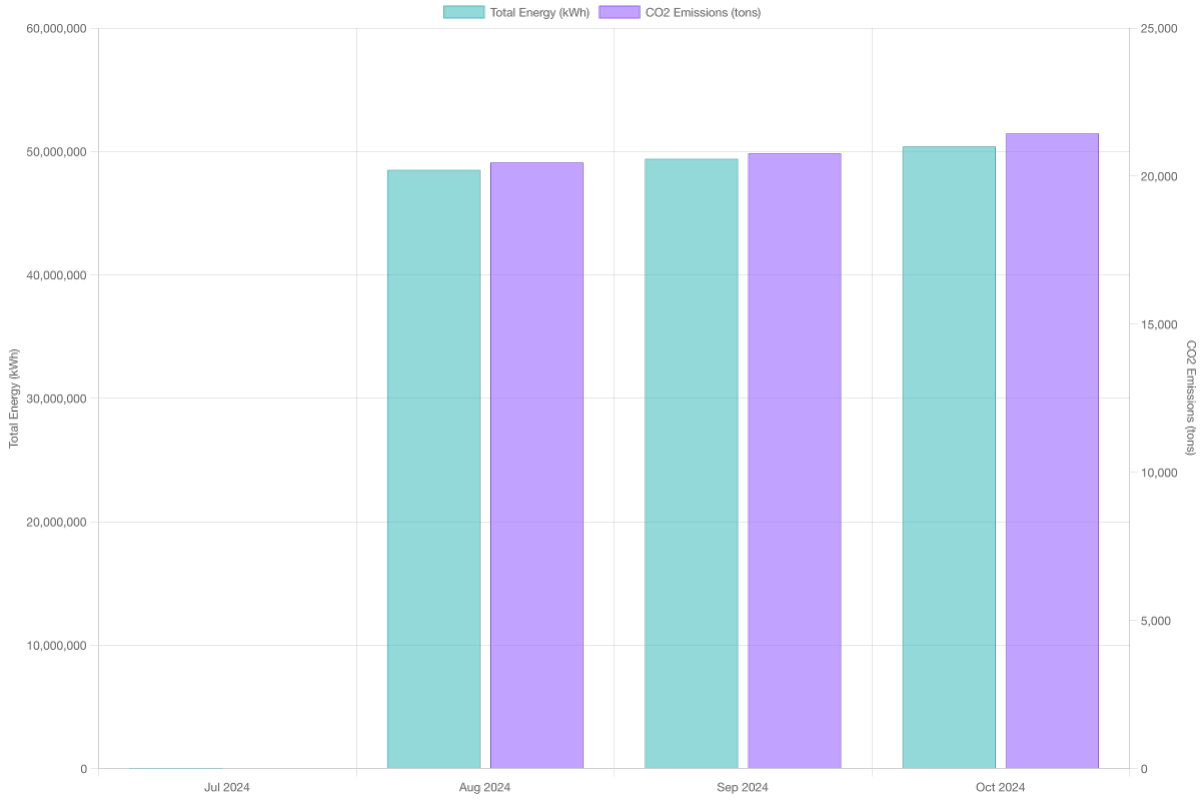
Singtel Sustainability Report 2024

Executive Summary

In 2024, Singtel's energy consumption reached a total of 148,300,361 kWh, while carbon emissions amounted to 62664.75 tons. This report provides an overview of Singtel’s energy use and environmental impact, highlighting key trends in consumption and emissions.

Data Overview



Data Insights

Date	Radio Equipment Energy (kWh)	Cooling Energy (kWh)	Backup Power Energy (kWh)	Misc Energy (kWh)	CO2 Emissions (tons)
Jul 2024	72.00	36.00	8.00	4.00	N/A
Aug 2024	73.00	35.00	10.00	3.00	N/A
Aug 2024	3900.00	5400.00	1200.00	1500.00	5100.00
Aug 2024	3400.00	4900.00	1100.00	1600.00	4620.00
Aug 2024	2800.00	4200.00	900.00	1600.00	4037.50
Aug 2024	2600.00	4000.00	900.00	1400.00	3570.00
Aug 2024	2400.00	3800.00	800.00	1300.00	3131.25
Sep 2024	3950.00	5450.00	1200.00	1500.00	5142.50
Sep 2024	3550.00	4950.00	1100.00	1600.00	4762.50
Sep 2024	2900.00	4250.00	950.00	1650.00	4080.00
Sep 2024	2650.00	4050.00	950.00	1450.00	3610.00
Sep 2024	2450.00	3850.00	850.00	1350.00	3171.00
Sep 2024	72.00	34.00	8.00	6.00	N/A
Oct 2024	4000.00	5500.00	1200.00	1800.00	5312.50
Oct 2024	3650.00	5000.00	1150.00	1650.00	4932.00
Oct 2024	2950.00	4300.00	1000.00	1700.00	4212.50
Oct 2024	2700.00	4100.00	1000.00	1500.00	3740.00
Oct 2024	2500.00	3900.00	900.00	1400.00	3243.00

Recommendations

1. Implement Energy Efficient Systems: Singtel could consider investing in more energy-efficient systems like HVAC, lighting, and other equipment. This can significantly reduce energy consumption. The actionable steps could include:
    - Conduct an energy audit to identify the areas where energy consumption is high and potential improvements.
    - Upgrade or replace old equipment with energy-efficient models. While the upfront cost may be high, the long-term savings in energy costs can offset the initial investment.
    - Regular servicing and maintenance of equipment can also ensure it's running efficiently and not using more energy than necessary.

2. Optimize Data Centers: Data centers are typically high energy consumers. Optimizing these could significantly reduce Singtel's total energy consumption. Actionable steps include:
    - Implement

1. Implement Energy Efficiency Measures:
    - Conduct an energy audit: The first step towards reducing CO2 emissions is understanding where and how energy is used within the organization. An energy audit will identify areas where energy is wasted and provide recommendations for improvements.
    - Upgrade to energy-efficient equipment: Replacing older, less efficient equipment with new, energy-efficient models can significantly reduce energy consumption. This not only reduces CO2 emissions but also saves money in the long term through reduced energy bills.
    - Implement energy management systems: An energy management system can help monitor, control, and optimize energy usage. This will ensure the company is using energy as efficiently as possible, further reducing emissions.

2. Transition to Renewable Energy Sources:
    - Invest in renewable

Recommendation 1: Investment in Solar Energy
Actionable Steps:
1. Conduct a feasibility study to understand the potential of solar power generation in the facilities of Singtel. This includes evaluating the rooftop space for installing solar panels and the amount of sunlight received throughout the year.
2. Collaborate with a solar panel installation company to design and install the panels. Ensure that the installation is done in accordance with safety standards and regulations.
3. Implement a monitoring system to track the energy produced by these solar panels and ensure it is integrated well with the existing power system.
4. Regular maintenance of the panels should be conducted to ensure efficiency and longevity of the system.

Recommendation 2: Investment in Wind Energy
Actionable Steps:

1. Perform a

Recommendation 1: Implement Geothermal Cooling Systems

Actionable Steps:
1. Conduct a feasibility study: Engage with an energy consultant to conduct a feasibility study. This will determine if the existing infrastructure is suitable for a geothermal cooling system.
2. Develop a project plan: Based on the results of the feasibility study, create a project plan that details the implementation process, timeline and budget.
3. Engage a contractor: Hire a reputable contractor who has experience in installing geothermal cooling systems in commercial buildings.
4. Monitor and optimize: After installation, continuously monitor the system's performance and make any necessary adjustments to ensure it's operating at optimal efficiency.

Recommendation 2: Adopt Liquid Cooling Technology

Actionable Steps:
1. Understand

Recommendation 1: Implement Real-Time Energy Monitoring System
Actionable Steps:
1. Invest in a real-time energy monitoring system that tracks energy usage across all Singtel's operations.
2. Analyze the data collected to identify inefficiencies and areas where energy consumption can be reduced.
3. Regularly report and review this information with the management team to make informed decisions for improving energy efficiency.
4. Use the data to create benchmarks and set targets for energy consumption reduction.
5. Make the energy consumption data transparent and accessible to all stakeholders to hold the company accountable for its energy usage.

Recommendation 2: Develop a Comprehensive Carbon Footprint Reporting System
Actionable Steps:
1. Establish a comprehensive carbon footprint reporting system that accurately calculates the total

Conclusion

Based on the provided data, it is clear that Singtel is making significant efforts to manage its energy consumption and minimize its carbon footprint. However, the figures provided still represent a significant environmental impact.

To further reduce emissions, Singtel could consider the following predictive actions:

1. Energy Efficiency: Invest in more energy-efficient technologies and systems. This

could include upgrading to energy-saving appliances and machinery, retrofitting buildings to make them more energy-efficient, or improving data center efficiency.

2. Renewable Energy Sources: Increase the use of renewable energy sources. Singtel could install solar panels, wind turbines, or other renewable energy systems to generate its own clean energy.

3. Offsetting: Implement a carbon offsetting program. This could involve investing in environmental