SUSTAINABILITY MATCH

REPORT 2024

OVERVIEW

Comments from the CEO, Phil Oliver

"Sustainability is our first filter on operational decision making at the Desert Vipers, it being one of the core elements of our HISS values. The Sustainability Match was an opportunity to celebrate what the Desert Vipers have managed to achieve with regards to sustainability in a short space of time, and show our commitment to the Sustainability component of HISS. In execution it actually went further and embraced all four HISS values, with High performance on and off the pitch, Innovation through placing carbon footprint labels on menus and in-stadia recycling, and engaging with fans through Social activities, all while having fun.

Cricket is a global sport with millions of fans around the world, and this platform gives us a fantastic opportunity to engage with and influence those fans to make a positive impact in their own communities. Our first Sustainability Match was an opportunity to bring people with us on the journey towards a more sustainable future, and is just the beginning for the Desert Vipers, as we continue to make positive strides for people and the planet."

Comments from the Head of Strategy, Matt Bailey

"The Desert Vipers are pleased to share the report on our first ILT20 Sustainability Match where, with ILT20 management's support, we were able to implement some of the ideas and initiatives that have emerged from our work in sustainability to date.

The team has committed to communicate transparently on our work and to educate through our actions, so we hope that this report will be interesting and useful to our own stakeholders and external observers alike. The Desert Vipers hope to influence policy and people by using sport as a vehicle for positive change.

Please feel free to contact us should you wish to discuss anything in the report or around Desert Vipers' sustainability programme and we look forward to seeing you at our Sustainability Match in ILT20 Season 3."

OBJECTIVES OF THE MATCH

To raise awareness around environmental issues, specifically climate change, and the importance of collective and individual responsibility.

To use the match as an example going forward to influence and set a new standard for future cricket matches.

To trial sustainability initiatives.


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2040
RECYCLE
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CONTENTS

KEY STATS

1,194KGCO_2e

Total greenhouse gas emissions saved:

32KG

Total plastic saved:

55KG

Total plastic recycled:

Carbon footprint savings:

19KGCO_2e

Fan Club Transport:

2KGCO_2e

Biofuels on Team and Family Buses:

1,112KGCO_2e

Low Carbon Menu:

Plastic savings:

15KG

No Plastic Packaging for Shirt Giveaways: (also saving 32kgCO_2e)

14KG

Reusable Water Bottles: (also saving 6kgCO_2e)

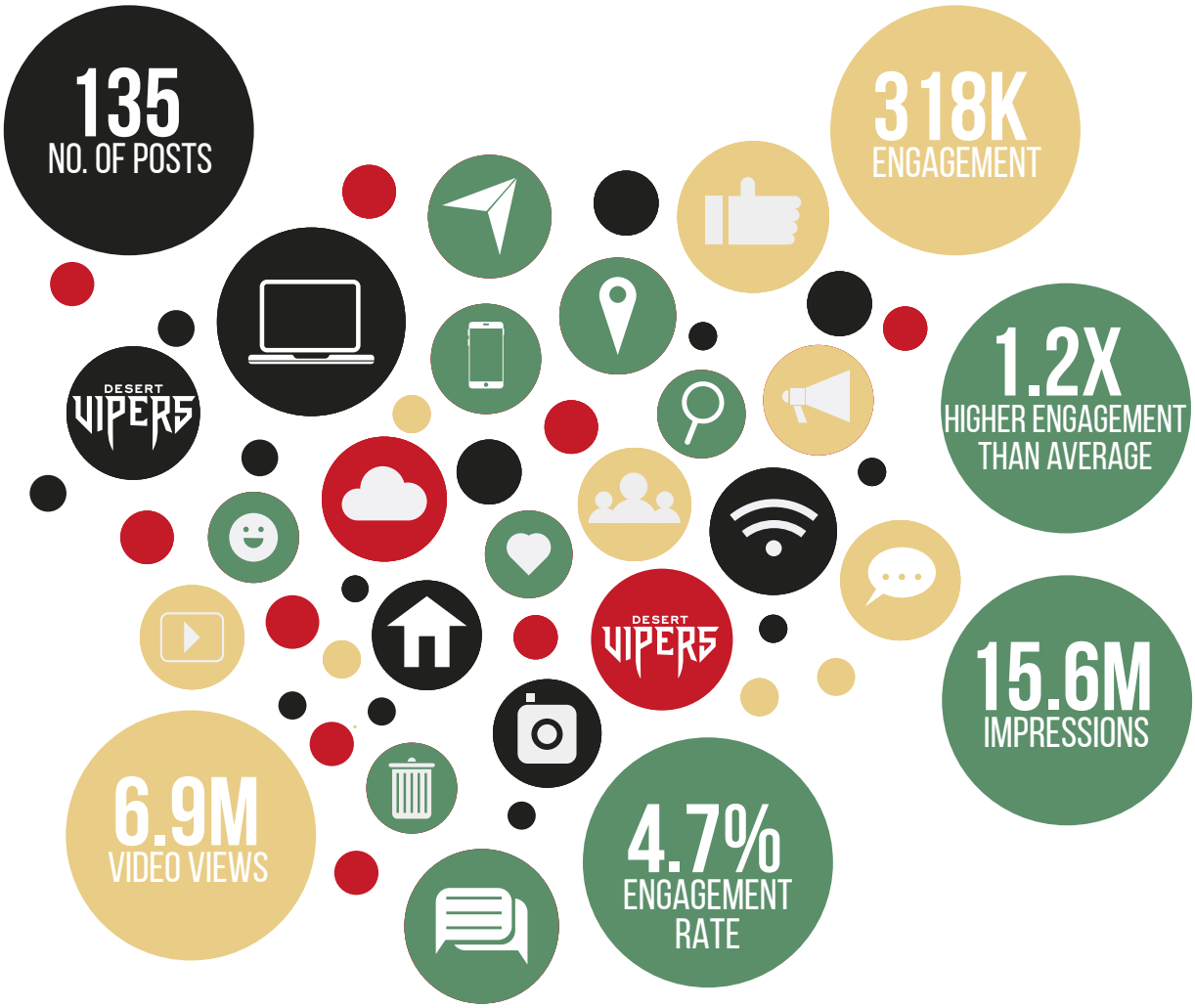
3KG

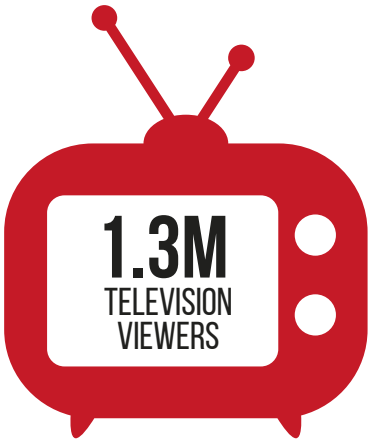
Wooden Cutlery: (also saving 2kgCO_2e)

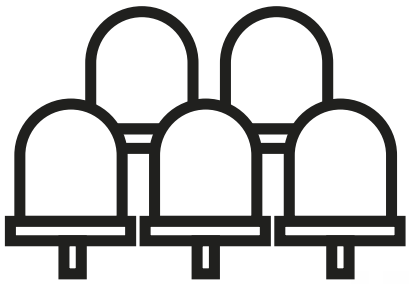
55KG
Recycled

Recycling Bins: (also saving 19kgCO_2e)

Social Media Engagement:







8,000
STADIUM ATTENDANCE

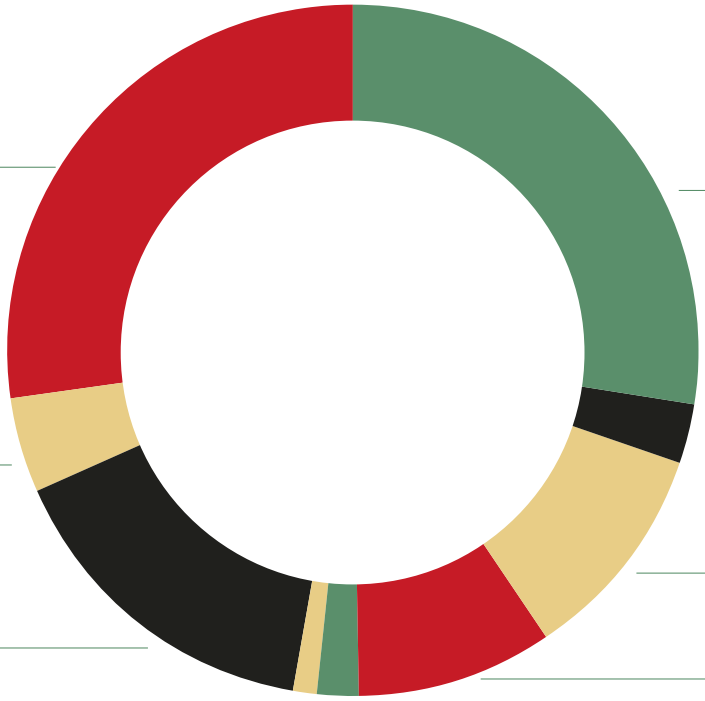
CARBON FOOTPRINT REPORT

As part of the forthcoming Season 2 carbon footprint, the Desert Vipers have produced a carbon footprint for this match.

Reporting Scope

Transport	Goods and Services	Waste
Fan Travel Team Travel (Home & Away)	Fan Kit Giveaways Food and Drink Stadium (Water, Electricity, Gas, Diesel Generators, & Fertiliser)	Stadium Waste (Landfill)

Carbon Footprint

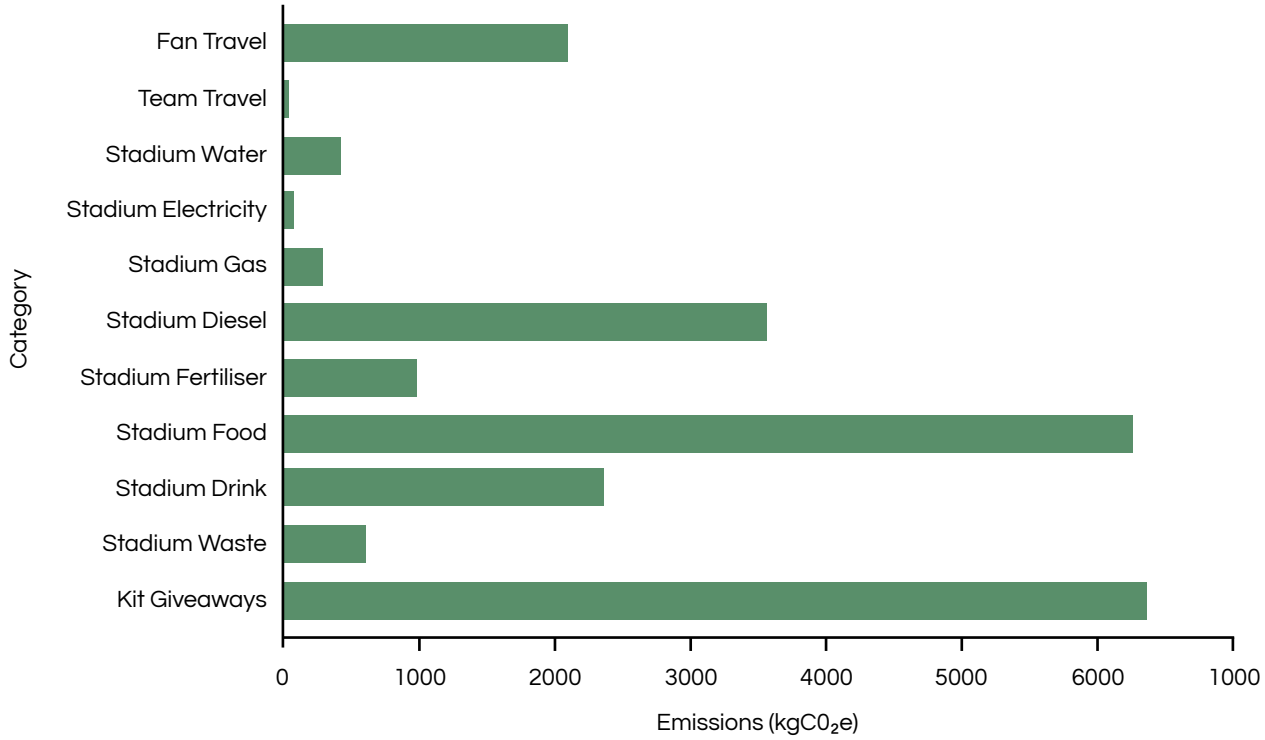


The total carbon footprint for the match was 23.09 tCO_2e. The largest source of emissions was from kit giveaways (6.36 tCO_2e), followed by stadium food (6.26 tCO_2e), and stadium diesel for the generators (3.56 tCO_2e).

In total, the carbon footprint savings of 1.19 tCO_2e reduced the footprint of the match by 5%, showing that this is just the start of the sustainability journey needed. Most of this reduction came from removing beef and lamb from the menu, which saw a reduction in the emissions from stadium food by 15%. Placing recycling bins in the stadium reduced emissions from waste by 3%.

Since Desert Vipers does not own the stadium at which it plays, the focus this year was on elements within our control; however, going forwards the team will have to address other elements too, and work collaboratively to reduce the majority of the emissions which come from the stadium.

Top Pollutants



Kit giveaways and stadium food were the largest sources of emissions, followed by stadium diesel (from generators). The generator in the stadium powered most of the match (e.g., floodlights), which explains why the stadium electricity value is low. Fan travel was another key contributor – although not as significant as in most other footprints of sporting events published. This owes to the fact that 93% of fans came by bus, with no international travel reported by fans, contrary to many other sporting events.

The values for some categories are more accurate than others. For fan and team travel, stadium food, drink, and waste, and kit giveaways, accurate information was able to be obtained, resulting in confidence in those values. However, for stadium water, electricity, gas, diesel, and fertiliser (plus air-con), values from the League-run stadium were not able to be obtained. For these values, although best estimates and considerable research has been made, the actual values may differ from those in this report. Please see the Assumptions for full details of the workings.

PLASTIC & CIRCULARITY

Eliminating plastic

Colin Munro, our Captain, handing over a ceremonial water bottle to the Captain of the Gulf Giants, James Vince, to signal our commitment to bringing people along with us on our sustainability journey.

The main sustainability focus for Season 2 was addressing single-use plastic pollution. We successfully eradicated single-use plastic water bottles from our team environment, partnering with Bluewater to find innovative solutions to this issue. Bluewater installed five state-of-the-art water filtration units at the three stadia we play at, preventing the use of 960 single-use plastic water bottles (500ml) during each match, and saving 14,400 single-use plastic water bottles over the season (including water consumption at training and the Team Hotel, and totalling 216 kg of plastic!). Each member of the team was given personalised refillable water bottles, which had thermally insulating properties, improving hydration. Although aluminium has a higher carbon footprint than plastic, the bottles were kept by team members and used after the tournament, resulting in further plastic savings, and so over the bottle's lifetime there will be a net carbon saving, coupled with an enormous reduction in plastic, making this a win for nature.

We distributed 3,000 shirts at the match, 2,000 of which were limited edition green shirts. These sports jerseys usually come individually wrapped in plastic; however, we worked with our supplier to ensure that this was not the case for kit giveaways this season, saving 3,000 plastic bags from being created, and reducing our plastic consumption by 15 kg for this match, and by 108 kg during the season, with an emissions saving of 230 $kgCO_2e$ over the duration of the season.

Finally, wooden cutlery was used in hospitality for this match, saving 3 kg of plastic.

PLASTIC & CIRCULARITY

Recycling what couldn't be eliminated

Single-use plastic bottles were still available to purchase at matches in the League-run Dubai International Stadium (DIS), so the Sustainability Match was used as an opportunity to address the waste that this creates.

We worked closely with DGrade to place 20 plastic recycling bins in the DIS – for the first time ever! Through this, 3,630 plastic bottles were recycled. The stadium operatives ran training sessions so their staff knew how to deal with this new method of controlling waste, and it was straightforward to implement this. The bins were kept for the following three ILT20 matches at the DIS, plus Desert Vipers' final home match of the season, resulting in a further 8,250 bottles being recycled! It was fantastic to see that the trial for the Sustainability Match had been a success, and resulted in lasting change.

Plastic recycling collection at the stadium. Employees of the stadium also collected any discarded bottles after the match which hadn't made their way to a recycling bin.

Here's what Kris Barber, founder of DGrade, had to say about the process:

> "DGrade worked with Desert Vipers to recover 3,630 PET bottles from the Sustainability Match this season! Our job was made easier with the cooperation of the facilities management staff at Sports City stadium in segregating the plastic on site. This ensured the material was free of contamination and easy to recycle. We are delighted to be supporting recycling in sports and close the loop by producing team merchandise made from recycled bottles."

TRANSPORT

One of the spotlights for the Sustainability Match was transport, since this is often the single biggest contributor to emissions from sporting organisations.

Our Team Bus and Family Bus used a biofuel blend (B5 fuel – 5% biofuel, and 95% diesel). While diesel blends of this mixture are commonplace in Europe, diesel in the UAE does not usually contain any biofuels. This represented a positive step forward, and resulted in a carbon saving of 2 $kgCO_2e$. We used these fuels in our buses throughout the season, resulting in a total saving of 81 $kgCO_2e$.

We also used the Team Bus to run a shuttle service from our fan club at Studio One Hotel to the stadium. 46 guests were transported the final 6.3 km to the stadium, reducing congestion and lowering emissions by 2,000% (19 $kgCO_2e$ lower), than if they had come in 16 individual cars (3 to a car).

A Studio One Hotel employee waiting to greet fans, and the Team Bus outside Studio One Hotel, ready to pick up fans and transport them to the Dubai International Stadium.

Information on sustainable travel options was provided online for our fans (and sent directly to hospitality attendees), which outlined the different transport modes to the stadium, along with associated emissions. The design of the document intended to encourage sustainable travel, with the most sustainable options listed first, and information on how to travel by car listed last, contrary to the UAE norm.

This information was also provided for away matches in Abu Dhabi and Sharjah, so that no matter where Desert Vipers were playing, our fans had a central source of information to show them how to get to the matches, and which option was the most sustainable.

Finally, we undertook an in-person fan travel survey, to understand how fans got to the stadium. 26 fans were asked which mode of transport they spent the most time using when travelling to the stadium, which produced interesting results. Modelling showed that 92.7% of fans got to the ground by bus, 6.0% by car, 1.0% by taxi, and 0.6% spent the most time using the metro when travelling. Journey times were indicated through four categories: 1-15 minutes; 16-30 minutes; 31-60 minutes; 60+ minutes. The most commonly indicated journey time for buses was 31-60 minutes, but for cars it was 1-15 minutes.

FOOD

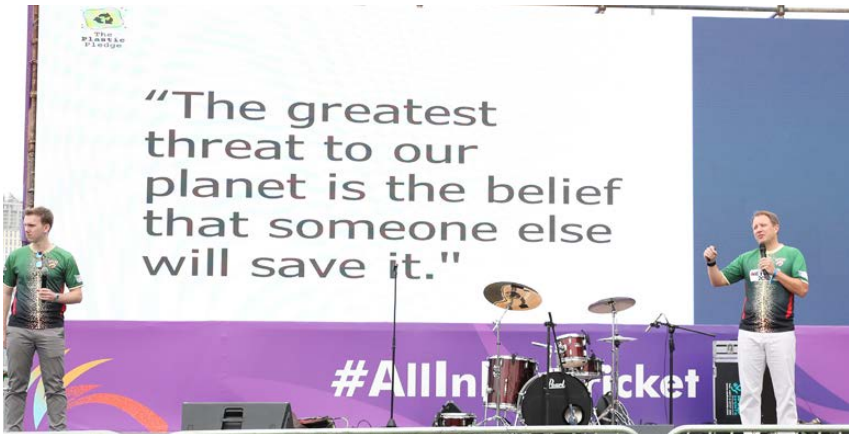
Food was another spotlight for the Sustainability Match. With help from Marriott Hotels in providing the menu and ingredients in advance, Desert Vipers were able to place carbon footprint information on menu labels in hospitality (which we believe may be a first in sports!). This information served to educate guests around the relative emissions of different dishes.

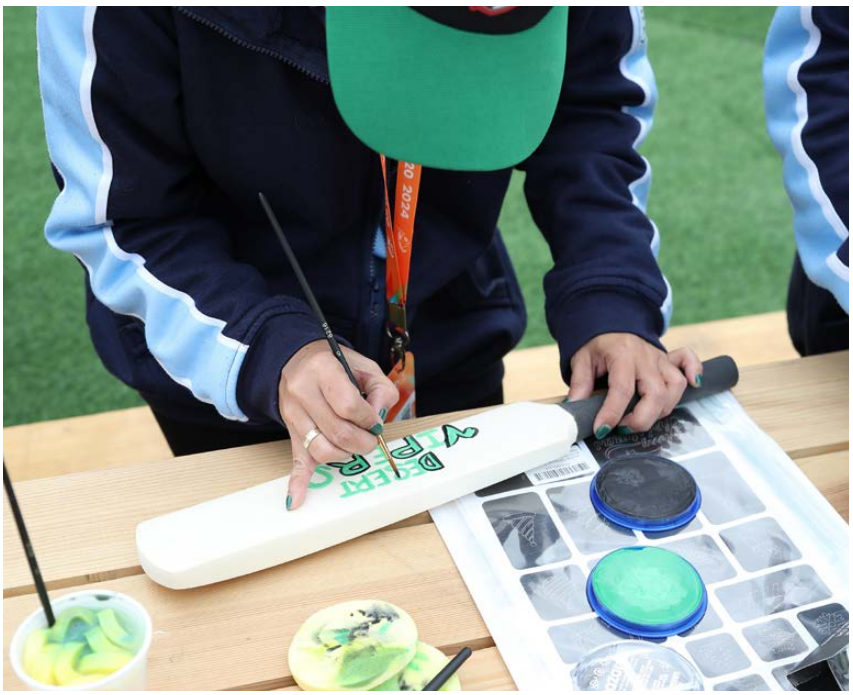
We also decided to have a low carbon menu for this match. While many organisations may have a vegetarian or vegan menu for sustainability purposes, the view was taken that it was better to choose foods based on their carbon footprint, rather than simply if they contained meat products or not. Whilst meat tends to have a higher carbon footprint than non-meat, we analysed each dish independently to ensure it was low carbon. High carbon beef or lamb dishes were modified to reduce the footprint, with chicken (which has a considerably lower carbon footprint) replacing the beef or lamb. These replacements resulted in a carbon saving of 1,112 $kgCO_2e$.

At our Fan Club at Studio One Hotel, fans were served a vegetarian, low carbon menu, with some of the food grown in Studio One's own vegetable garden, on-site!

Carbon footprint labels in hospitality sections. Note that 'Non Veg' is used to denote meat dishes, rather than a 'V' symbol for vegetarian dishes. This subtle change modifies the perception of the norm, with vegetarian dishes becoming the norm, and meat becoming an exception.

VIEW FROM THE FAN ZONE






#AllInForCricket
VIPERS PLEDGE
NET ZERO
2040


EXCHANGE
OLD KIT FOR
NEW GREEN KIT


Virgin
Tickets
MEGASTORE
DUBAI
CAPITALS
MI
EMIRATES


#AllInForCricket
Hertz

There were lots of fun sustainability-themed activities going on in the Fan Zone in the match build-up.

As part of our partnership with The Plastic Pledge, Toby Gregory (from The Plastic Pledge) and Ben Hardy-Jones (our Sustainability Lead) gave a speech on plastic pollution to hundreds of schoolchildren. The opportunity was taken to showcase a powerful message: STOP PLASTIC POLLUTION!

Fans were able to get their face painted green, in the spirit of the day, to match their green clothing.

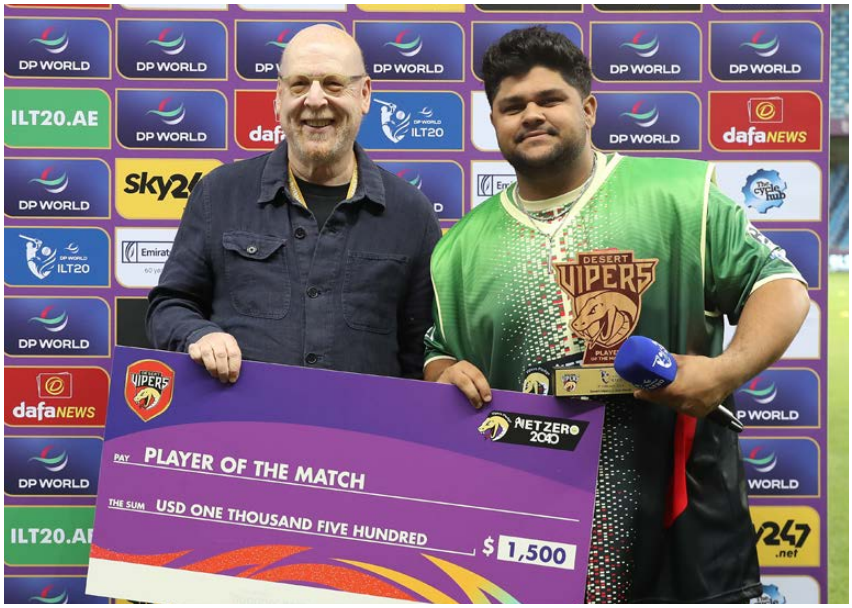
Green jerseys were also handed out to fans. These jerseys contained three environmental messages. Firstly, Desert Vipers' Net Zero 2040 pledge was featured on the front of the jersey. On the back was the number 1.5°C, signifying our commitment to playing our part in trying to limit global average temperature rise to 1.5°C. Finally, on the back was: "Reduce Reuse Recycle", to further spread awareness of how fans can play their unique part in addressing collective environmental challenges. Fans were also given the option to return old sports kits in exchange for a new green jersey, as we tried to encourage the adoption of circular economy practices.

Finally, we also rolled out our cricket and sustainability games from Desert Vipers' Schools Programme (sponsored by Hertz Al-Futtaim) in the Fan Zone. Sustainability language and themes were incorporated into traditional cricket games, giving children the opportunity to learn about sustainability in a fun environment, whilst getting active.

The stilt walker high-fiving one of the schoolchildren who attended the speech on plastic pollution by Toby Gregory and Ben Hardy-Jones. The 1.5° number, and 'Reduce Reuse Recycle' message is visible on the back of the shirts, with the Net Zero 2040 pledge on the front shown on the stilt walker's shirt.

VIEW FROM INSIDE THE STADIUM

During the match, there were several sustainability initiatives taking place. Most visibly, players were wearing green for their match kit, directly swapping their training and match kits for this match. Furthermore, Desert Vipers' Net Zero 2040 pledge was positioned in the prime sponsorship position on the front of the shirt. Sustainability is so important to us that we actually turned down sponsorship opportunities this season in favour of having our pledge in the most visible spot possible. During this match, the combination of the green kit and the pledge looked fantastic on the players!



Azam Khan was the winner of the Player of the Match trophy for his fantastic batting performance. However, he might notice something different about the trophy: the cutout (top section) is wooden! This is a further effort to use more sustainable materials in our purchases and shows that sustainable products are for the best in class – quite literally on the day.

Our sustainability message which was advertised on the LED boards.

The big screens were used to spread sustainability messages to fans inside the stadium. Our Net Zero pledge and the message 'Reduce. Reuse. Recycle' were present on the LED boards surrounding the pitch. The big screen featured a cartoon (making it universal for fans, whatever their language) showing someone putting their plastic bottle in the recycling bin, encouraging fans to recycle in the bins which were placed in the stadium for the first time ever.

At the innings break Desert Vipers' 90-second feature sustainability video was shown on the big screen and TVs around the world, showing viewers our commitment to sustainability. Commentators were briefed about the activities, so that TV viewers could get a flavour and a sense of what it was like at the ground.

In the hospitality zone were dozens of sustainability professionals from various businesses in the UAE, ranging from startups to some of the biggest businesses in the country. Matt Bailey, Head of Strategy, and Ben Hardy-Jones, Sustainability Lead, were on hand to greet these guests and inform them about the work Desert Vipers are doing in the sports and sustainability space, with some of them being new to cricket. The guests found it an invaluable opportunity to network not only with Matt and Ben, but with each other, showing how sport can unite and bring people together on the mission to decarbonise society.

Matt and Ben welcoming and engaging with a range of sustainability professionals. In the background of the photo on the left, one of the DGrade recycling bins can be seen – the first time recycling bins were in the Middle East's premier cricket venue.

LOOKING FORWARDS

The Sustainability Match had three objectives, which it broadly achieved to a large extent. Each of the initiatives above contributed to one or more of those objectives. Firstly, the match raised awareness of environmental issues and how individuals could play their part. Messaging on the shirt and the visual green element was central to this, but messaging without providing solutions can leave individuals feeling helpless. By placing recycling bins in the stadium and using a low-carbon menu, we followed up messaging with specific actions that individuals and organisations can take, paving the way for the first steps towards a sustainable future.

We also set a positive example going forward, particularly for what a cricket match could look like. Our reusable water bottles are an unusual sight in cricket, but we proved that teams and leagues can eradicate single-use plastic water bottles from their team environment, despite it being a perennial issue across most cricket leagues. Actively engaging in fan travel and using biofuels in team buses has set a new standard for how transport can become more sustainable.

Finally, sustainability initiatives were trialled, which were a success. Carbon footprint information on food labels sparked conversation amongst hospitality guests, and placing the recycling bins in the stadium allowed fans to recycle their plastic bottles, with these bins being kept in for further matches, proving that the trial was a triumph.

One of the biggest victories from the match was the opportunity to engage with stakeholders. When undertaking sustainability initiatives, the focus has been on what Desert Vipers can control, but as we progress and minimise these sources of emissions, we need assistance and support from our stakeholders to reduce emissions elsewhere. We will not become sustainable alone: we need support from all of our stakeholders. This match showed that we want to and can engage and encourage everyone to come on this journey with us, for our health, our planet, and our cricket.

Influencing the Wider Cricketing World

At the Desert Vipers, we believe that by showcasing the benefits of sustainability initiatives, and the relative ease with which they can be done if properly planned for, other cricketing organisations will begin to integrate environmental considerations into their decision-making processes and lead to the adoption of greener policies across the entire game.

The wider impact of the Desert Vipers' Sustainability Match and other sustainability initiatives can extend beyond the boundaries of cricket, inspiring stakeholders at all levels to embrace environmentally responsible practices and contribute to a more sustainable future for our planet.

Looking Ahead to Season 3's Sustainability Match

In Season 3, we want to go further. We recognise that we have only just scratched the surface with what is possible, and we want to improve upon areas which were less successful this season, and continue to push the boundaries in areas which were successful or not addressed this season, persistently raising the bar. Our partnership with the Dubai Sports Council as our Lead Sustainability Partner will enable us to accelerate action on sustainability, and help ensure we bring people and partners with us along the journey.

ASSUMPTIONS

Savings

Calculation	Saving*	Assumptions
Biofuels on Team and Family Buses	2 $kgCO_2e$ during the match 81 $kgCO_2e$ during the season	The distance from the Team Hotel to DIS was 35 km, so total distance travelled for two buses = 140 km. B5 emissions are marginally lower than diesel emissions, saving 2 $kgCO_2e$ during the match. The team and family buses travelled 5,703 km over the season. Per km, B5 emissions are 0.014 $kgCO_2e$ lower than diesel emissions, saving 81 $kgCO_2e$ in total.
Fan Club Transport	19 $kgCO_2e$ during the match This was a one-off, trial initiative to understand emission savings. There were no further savings from this during the season.	There were 46 guests at the Fan Club at Studio One Hotel. Assuming they would have come three to a car (which was the average result from our fan travel surveys), that results in a distance of 100 km (the DIS is 6.3 km from Studio One, and 16 x 6.3 = ~100 km). If these cars were petrol cars (the most common in Dubai), this results in emissions of 20 $kgCO_2e$. The fan bus (which was the Team Bus, used after the players and coaches had been dropped off), travelled 12.6 km (6.3 km to Studio One to pick up the fans, and 6.3 km back to the DIS to drop them off), so emitted roughly 1 $kgCO_2e$. The difference in emissions is 20 $kgCO_2e$ – 1 $kgCO_2e$ = ~19 $kgCO_2e$, a staggering difference.
Low Carbon Menu	1,112 $kgCO_2e$ during the match This was a one-off, trial initiative to understand emission savings. There were no further savings from this during the season.	The standard menu consisted of 40 kg of lamb (with emissions of 1,116 $kgCO_2e$), and 5 kg of beef (with emissions of 298 $kgCO_2e$). The new menu removed these items and replaced them with 45 kg of chicken (with emissions of 302 $kgCO_2e$). The emissions savings was (1,116 + 298) - 302 = 1,112 $kgCO_2e$.
No Plastic Packaging for Kit Giveaways	15 kg of plastic (32 $kgCO_2e$) during the match. 108 kg of plastic (230 $kgCO_2e$) during the season.	Each of the 3,000 kits usually comes in a 5 g polythene bag, resulting in 15 kg of packaging. During the season, 21,685 items of clothing were ordered which we specifically requested not to come with plastic packaging, resulting in a saving of 108 kg of plastic over the season.

ASSUMPTIONS

Savings

Calculation	Saving*	Assumptions
Reusable Water Bottles	14 kg of plastic (6 kgCO_2e) during the match. 216 kg of plastic (90 kgCO_2e) during the season.	Eliminating single-use plastic from the team environment saved 960 single-use plastic bottles from this match. Each bottle would have been 500 ml, weighing around 15 g. 960 x 15 g = 14.4 kg. Over the season, 14,400 bottles were saved. 14,400 x 15 g = 216 kg.
Plastic Cutlery	3 kg of plastic (4 kgCO_2e) during the match. This was a one-off, trial initiative to understand emission savings. There were no further savings from this during the season.	1 fork + 1 spoon + 1 knife + Plastic packaging for 216 hospitality guests at an average weight of 5 g per piece of cutlery. In total, this is 648 pieces of cutlery. 648 x 5 g = 3.2 kg.
Recycling Bins	55 kg recycled (saving 19 kgCO_2e) during the match 180 kg recycled (saving 61 kgCO_2e) during the season	11 bags were collected. Assuming 330 bottles per bag, and 15 g per bottle, each bag was 5 kg. This meant 55 kg of plastic was recycled. In the following three matches at the stadium (non Desert Vipers matches), 15 bags were used (only 5 bags per match, due to lower attendances), and a further 10 bags for our final match of the season. In total, 36 bags were recycled, each weighing 5 kg (so 180 kg in total was recycled).

*Each saving value has been rounded to the nearest whole number.

Total footprint savings from the match =

1,194KGCO_2e

ASSUMPTIONS

Overall Carbon Footprint

Calculation	Carbon Footprint*	Assumptions
Fan Travel	2,100 $kgCO_2e$	Surveys indicated that 92.7% of fans came by bus, 6.0% by car, 1.0% by taxi, and 0.6% by metro. Assuming that a bus averages 60 km/h, a car at 75 km/h, a taxi at 75 km/h, and the metro at 42 km/h, extrapolation of the survey results in: 6,773 km by bus = 1,219.1 $kgCO_2e$ 2,146 km by car = 695.3 $kgCO_2e$ 588 km by taxi = 176.3 $kgCO_2e$ 289 km by metro = 9.1 $kgCO_2e$
Team Travel	23 $kgCO_2e$	The distance from the Team Hotel to DIS is 35 km, so total distance travelled for two buses is 140 km. For buses with B5 fuel, this releases 10.1 $kgCO_2e$. Assuming the opposition had two buses, and their team hotel was also 35 km away, they would have also travelled 140 km. For buses with conventional diesel, this releases 12.6 $kgCO_2e$.
Stadium Water	436 $kgCO_2e$	This information was not provided by the stadium. To create an estimate, alternative sources were used. The average water use for cricket stadiums is between 20,000 to 75,000 litres per match day according to multiple sources. Assuming Dubai International Stadium uses 40,000 litres per day (middle of the range), total consumption for February would be 1.2 million litres. The DIS is shared by three teams, so this value should be divided by three. Desert Vipers played two matches in Feb = 200,000 litres for this match, which = 436 $kgCO_2e$.
Stadium Air-Con Water Usage	Missing	Provision of this information was not provided by the stadium and estimations proved difficult, so this value is missing However, air-con accounts for a high % of UAE energy use, so we have acknowledged that this missing value may have contributed to a somewhat lower overall footprint figure.

ASSUMPTIONS

Overall Carbon Footprint

Calculation	Carbon Footprint*	Assumptions
Stadium Electricity	74 $kgCO_2e$	Stadium values for electricity were not provided for February 2024, so we have used stadium electricity values from August 2022. This is because, in 2022, August had the highest values. Given that the ILT20 tournament wasn't played in 2022, and values for January and February are 5x lower, we have taken the highest value from that year to ensure we are not under-reporting (for example, by using a month when there were much fewer events in the stadium). 2022 values for August showed monthly electricity consumption as 1,008 kWh. Therefore, 1,008 kWh could have been used in the month of February. The stadium is shared between three teams, so taking one-third of that equals 336 kWh. In reality, if we reach the knockout matches our responsibility should be higher, but if we don't it should be lower. We played two matches in the DIS in February, so 168 kWh was used per match = 73.75 $kgCO_2e$. These electricity values are quite low because lots of the systems in the stadium will likely be run off (diesel) generators.
Stadium Gas	297 $kgCO_2e$	This information was not provided by the stadium. To create an estimate, alternative sources were used. In restaurants (in the UK), gas emissions per customer are 0.21 $kgCO_2e$ (Hardy-Jones and Hampton, forthcoming). Presuming that gas was used to cook food for hospitality guests, which has a capacity of 1,412 people, emissions would be 296.56 $kgCO_2e$.
Stadium Diesel (Generators)	3,564 $kgCO_2e$	This information was not provided by the stadium . A maximum of four diesel 200 KVA Generators are used for stadiums in India during the IPL. Considering the IPL is hosted in larger stadiums, we are assuming a four generator capacity at DIS. With all four running at full load, fuel consumption is 55 litres per hour. With average game time of 3 hours, plus an additional 90 minutes of run time each, before and after the game, total usage is 6 hours. Fuel consumed: 55 x 6 x 4 (Fuel consumption x Hours x No of Generators) = 1,320 litres = 3,564 $kgCO_2e$.

ASSUMPTIONS

Overall Carbon Footprint

Calculation	Carbon Footprint*	Assumptions
Stadium Fertiliser	987 $kgCO_2e$	The stadium uses Desert Energy 30-10-10+ MgO+TE Fertiliser Powder = 306 kg = 963.9 $kgCO_2e$. It also uses Plant Protection Liquid Seaweed = 123 kg = 23.37 $kgCO_2e$.
Stadium Food	6,264 $kgCO_2e$	There are a lot of assumptions and estimates in this figure, which would be too many to list in this report. For this information, please email sustainability@thedesertvipers.com
Stadium Drink	2,366 $kgCO_2e$	According to League rules, it is mandatory to provide a specific number of water and soft drink cases for each match that we are the home team. In S2, the number of water cases (12 x 500 ml bottles in a case) was 146, which = 1,752 bottles = 26.28 kg plastic, and 876 litres of water. The number of soft drink cases (24 x 500 ml bottles in a case) was 77, which = 1,848 bottles = 27.72 kg of plastic, and 924 litres of soft drinks. Assuming that non-hospitality fans (of which there were 7,500) had one drink each (at a 50:50 split of soft drink: water), that equals 112.5 kg of plastic, and 3,750 litres. Total Water = 5,502 bottles, 82.53 kg of plastic, and 2,751 litres = 770.28 $kgCO_2e$ Total Soft Drink = 5,598 bottles, 83.97 kg of plastic, and 2,799 litres = 1,539.45 $kgCO_2e$ Total weight of plastic = 167 kg = 56.1 $kgCO_2e$
Stadium Fertiliser	987 $kgCO_2e$	Assuming bin bags were 80 litres and each weighed 5 kg: 770 kg of general waste was collected (as the 13,200 litre bin was emptied after each match; however, the plastic waste usually went in here, so the value for general waste is 55 kg lower (the amount of plastic collected) than the usual value). 55 kg of cardboard was collected for recycling (as the 2,200 litre bin was emptied every 2-3 match days, so 880 litres was filled from the match) 175 kg of aluminium was collected for recycling (as the 14,000 litre bin was emptied once every 5 matches, so each match filled 2,800 litres) 55 kg of plastic was collected for recycling (as 11 bags were filled)

ASSUMPTIONS

Overall Carbon Footprint

Calculation	Carbon Footprint*	Assumptions
Stadium Fertiliser (cont'd)		The emissions from the general waste were 616 $kgCO_2e$. For the recycled waste, this value is negative. This is because, by recycling items, we are lowering the future emissions released from the production of these materials. While we will not be negating this value from the footprint of the match, as it does not remove any GHG from the environment, it only prevents their future release (in a similar way to offsetting by investing in solar panels), it is important to emphasise that these actions have a positive impact on the planet. The emissions from recycled waste are: -6.6 $kgCO_2e$, -1,424.4 $kgCO_2e$, and -59.4 $kgCO_2e$ for cardboard, aluminium, and plastic, respectively.
Kit Giveaways	6,367 $kgCO_2e$	3,000 polyester shirts were given away. Each shirt weighs roughly 140 g, so we gave away 420 kg of shirts. No plastic packaging was used. 2,000 polyester caps were given away. Each cap weighs 72 g, so we gave away 144 kg of caps. 25 caps came together in plastic packaging, which weighed 5 g, resulting in 0.4 kg of plastic packaging. This was recycled at a local company. 2,000 polyester flags were given away. Each flag weighs 30 g, so we gave away 60 kg of flags. Each flag was also packaged in a plastic bag, which weighed 5 g, resulting in 10 kg of plastic packaging. This was recycled at a local company. Total polyester = 624 kg = 6,364.8 $kgCO_2e$ Total plastic packaging purchased = 10.4 kg = 2.4 $kgCO_2e$

*Each saving value has been rounded to the nearest whole number.

Total footprint from the match =

23,094KGCO_2e

AUTHORS & CONTRIBUTORS

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