

REDUCING
EMISSIONS ON
A RETURNING
SERIES:
A CASE
STUDY ON
HAT TRICK'S
SMOGGIE
QUEENS

SCREEN
ALLIANCE
NORTH

LIVERPOOL
OFFICE FILM

North
East
Screen



SCREEN
MANCHESTER

SCREEN
YORKSHIRE

When a series returns, certain expectations and production practices may already be in place. But how can we make sure the same can be said for the show's sustainability practices?

Production company, Hat Trick, wanted to ensure a continued prioritisation of sustainable practices in line with their wider company strategy, and so worked with Picture Zero and Sustainability Coordinator, Gary Stubbs, towards this goal. Smoggie Queens Series 2 built on the groundwork of Series 1 to deliver meaningful carbon reductions across power, transport, materials, catering, and waste without compromising on creativity or established departmental ways of working.

Here's how they did it:



Transport & Travel

Like most shows, Travel and Transport emissions proved to be an emissions hotspot for Smoggie Queens. To tackle this, Series 1 focused on environmentally friendly methods of travel, with the production prioritising rail travel, ensuring no domestic flights, reducing road travel across the country and, where possible, securing a sustainable, low-carbon fleet.

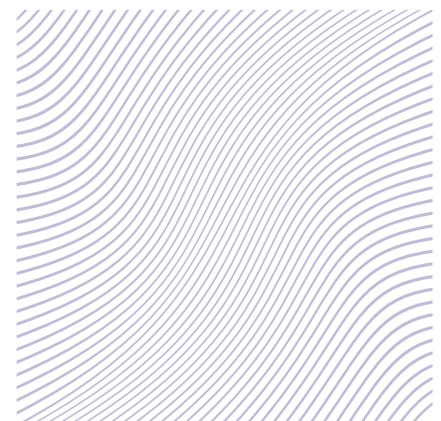
Going into Series 2, the production wanted both to replicate and to expand on these established practices. To reduce the amount of transportation the production would require, there was a continued focus on hiring local crew. For Series 2, the production achieved a total of 85-90% of Northeastern and Northern crew, supporting both local economy and emissions reductions across the board. When transport was needed, and with the support of the Sustainability Coordinator, EVs were used for all cast transfers during filming, and 100% of hired crew and facilities transport used HVO.



Power

Power use on Series 1 of Smoggie Queens had already begun to move towards cleaner energy sources, through use of HVO (Hydrotreated Vegetable Oil) and the exploration of hybrid battery systems. Series 2 carried this strategy forward and implemented it more comprehensively across the production. All generators were powered using HVO, fully replacing diesel and reducing comparable emissions by more than 80% - as well as aligning with emerging industry standards.

Alongside this, careful planning resulted in strict no-idling practices outside of essential usage, such as refrigeration. The continuation and strengthening of Series 1's power strategy enabled Series 2 to achieve a far lower energy footprint, without changing the day-to-day operational requirements of the production.



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Materials, Reuse & Circularity

By its nature, Smoggie Queens is a show that celebrates and platforms creativity, and out-of-the-box thinking. Series 1 set out to honour this ethos, without compromising on sustainable choices. As a result, there were many successes in this area, with strong commitments to reducing the environmental impact of set construction and scenic work, encouraging the use of sustainably sourced materials, and maximising reuse.

Series 2 built directly on these foundations. FSC-certified timber was selected for all new builds and the use of low-VOC paints, sustainable adhesives, and green scenic products continued. Outside of the builds, the Art Department prioritised reuse, drawing from existing Series 1 stock alongside locally hired and second-hand materials.

Smoggie Queens also strengthened its circular approach at wrap by implementing structured donation routes to schools, community arts organisations, and regional groups. When production had ended, the formalised materials tracking system used throughout clearly demonstrated the continuation of Series 1's original aims, as well as highlighting incremental improvements.



Catering

Mindful that catering emissions tend to be underreported and yet produce significantly higher emissions than anticipated, Hat Trick made sure to focus on reducing emissions via their choice of catering companies and menus. Series 1 trialled a reduction in carbon-intensive meals, the results of which led to the recommendation to remove beef entirely from the menu on future series (due to its high emissions per gram). Series 2 took on this recommendation, creating a no-beef policy across all catering operations.



This was a key sustainability win for the production; while, on average, only 8% of meals consumed on production contain beef, it is typically responsible for 28% of food-based emissions. The removal of beef therefore led to a significant reduction in catering emissions on Smoggie Queens.

Beyond this, daily meal tracking, as well as a pre-ordering system for cast and key crew, helped reduce food waste and improve data entry accuracy. By the end of the show, Picture Zero and the Sustainability Coordinator were able to demonstrate both robust and accurate emissions savings in this area.

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Waste

As with many productions, waste can be tricky to tackle. Series 1 identified waste as a key area for improvement, calling for better signage, improved data capture, and higher crew compliance. The following series built on this by implementing a consistent three-stream waste system across all locations. Clear signage, colour-coding and QR-linked guidance helped to ensure correct sorting, while the Sustainability Coordinator provided hands-on support to address contamination issues early in the shoot. Together, these measures created a more coherent and effective waste management approach across the production.



Communications & Engagement

Learnings from Series 1 emphasised the importance of consistent and timely sustainability communication, and a more visible sustainability presence on set. With the pilot acting as one of the first productions to pilot the Green Rider Handshake, the engagement of the cast on Smoggie Queens in Series 1 was as important as the engagement with the crew. Going forwards, the Sustainability Coordinator on Series 2 played a highly visible, supportive role on the ground, offering department- and cast-specific guidance and helping to embed sustainability as a shared value across the team. Consequently, engagement grew stronger on Series 2, reflecting a desire across the board to cultivate a culture in which sustainability was a core part of the production's identity.



Data Tracking & Reporting

Finally, the collection of accurate data has increasingly become a key focus area for all productions due to the completion of the albert carbon footprint required as part of the certification process. While some of the data in Series 1 proved strong, better data collection remained a core recommendation – particularly around fuel use, travel, waste and materials.

With these in mind, the second series of Smoggie Queens adopted a centralised data tracker from the start of prep to align with Hat Trick's own internal policy, allowing departments to log information consistently throughout the shoot. Clear responsibilities were defined for each department and supplier, ensuring that the data feeding into the final report was robust and complete. As a result, Series 2 delivered high-quality emissions reports to allow Hat Trick to feed into their wider company's carbon footprint.



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SCREEN ALLIANCE NORTH



PICTURE  ZERO

