Clean Mobile Power Initiative

THIRD DERIVATIVE | RMI

Crews

How production crews can lead the clean mobile power transition

About clean mobile power

Diesel generators have long powered film and TV productions, but the technology now exists to replace them. Solar trailers, battery energy storage systems (BESS), and hydrogen power units (HPUs) can deliver clean, quiet electricity that meets production power needs. These solutions can cut generator-related emissions by 60–80 percent, while reducing noise and improving air quality on set.

Thanks to these advancements, productions now have access to a suite of clean mobile power options: compact batteries for set lighting and construction work, solar on ultra-efficient trailers to handle trailer heating and cooling, and large trailer-mounted BESS and hydrogen units capable of powering entire basecamps and sets. These solutions are already being deployed successfully on productions large and small to meet a variety of different power needs.

Benefits

For crews, clean mobile power means quieter sets, faster setups, and healthier working conditions. For instance, silent BESS unit operation allows for closer placement to filming areas, improving efficiency and flexibility, reducing cabling needs, and saving crews time and effort. Both BESS and HPU fuel cell solutions also release zero emissions on set, reducing crew exposure to harmful pollution particles. The result of clean mobile power adoption is more flexible operations, healthier sets, and more efficient shoot days.

Cost considerations

While clean mobile power solutions may still cost more than diesel generators today, productions and suppliers can recoup these costs through fuel savings and lower maintenance costs, respectively. The technologies themselves (batteries, fuel cells, and PV cells) already benefit from mature, global manufacturing and proven reliability. What drives current premiums is scale: purpose-built systems for film and TV production are still nascent. As more productions adopt clean power, costs are likely to fall, unlocking a future where reliable, zero-emission energy is both the smarter and more affordable choice.

Call to action

Crew members can drive adoption by asking for clean power options in rental orders, attending training sessions, and documenting successful use cases. Every early adopter sends a market signal that expands supply and drives prices down. Becoming proficient in clean power systems today ensures crews are ready for tomorrow's industry standards.

By becoming an early adopter of clean mobile power technology, crews can stay up to date with the latest production technology and qualify for more job opportunities as studios and streamers adopt cleaner power solutions. By choosing clean mobile power solutions, crew members can contribute to more resilient, efficient, and less polluting productions.

This summary was created as a companion document to the report *Charting the Path to Clean-Powered Productions: A Decarbonization Roadmap for Film and Television*. You can read the full report here: https://rmi.org/charting-the-path-to-clean-powered-productions.

How crew can help reduce emissions

Checklist item	Why is it important?	Potential collaborators	Ideal outcome
Ask vendors early for clean mobile power options (e.g., solar trailers, battery energy storage systems, hydrogen power units).	• Early vendor requests signal demand for clean mobile power technologies, encouraging suppliers to expand availability. • Production crew enabled to incorporate clean mobile power units into production rental equipment lists.	• Suppliers, department heads, production team	• Vendors recognize and respond to demand for clean mobile power • Increased availability and reduced costs over time
Check grid power access at filming and support sites (and inform production and electrics before the tech scout).	• Early grid tie-in discussions simplify logistics and footprints and reduce mobile power needs.	• Production managers, electrical and transportation departments, location managers	• Grid access considered in location decisions • Effective integration of clean mobile power and grid power
Engage in power planning discussions early (once locations or stages are selected).	• Early planning ensures accurate power assessments and enables successful deployment of clean mobile power solutions.	• Other crew members; production managers; location, electrical, and transportation departments; possibly special effects department	• Maximized opportunities to deploy appropriately sized clean mobile power equipment • Clean mobile power equipment included in standard rental packages • Broader production awareness of clean power alternative
Request cleantech demonstrations, show and tells, or trials from vendors before the tech scout.	• Familiarity with clean mobile power technology before the tech scout supports better planning, and smoother deployment and positive production experiences on set.	• Suppliers, production managers, vendors	• Early identification of the best clean mobile power systems for each production's power needs • Increased confidence and readiness to use clean mobile power solutions
Organize or participate in training for clean mobile power gear.	• Hands-on experience builds confidence, promotes safe operation, and ensures smooth on-set integration.	• Industry groups and unions, other crew members, production team	• Increased awareness among the crew of clean mobile power products, when to use them on set, and how to operate them safely and effectively