Green PIONEER!

Best Practices

In general, bear in mind these simple three rules:

- 1) Start as early in the process as possible. By the time you arrive on the set, there is little time to effectively and gracefully facilitate change.
- 2) Be intelligently lazy. Don't do everything yourself. Share your vision, involve heads of departments to come up with solutions, and make someone on the set responsible. Share your results with your crew, and with others who are interested in green filmmaking.
- 3) Never stop asking questions. Suppliers, employees, crew members, even youno one likes to be ordered around, and told what to do. Asking questions is the way in, and can possibly lead you into undiscovered territory. And never stop. It's a process, it will take you some time but when you keep moving, growing, and learning, you'll reach your goal.



All Departments

There are many basic things that everyone can do, no matter in what department they work.

- 1) Ensure the set is equipped with recycling facilities
 - Szelektív szemetesek: Link1 Link2 Link3 Link4
 - Kommunális zsák: Link1

2) Ensure all crew members are aware of environmental standards for the production

- 3) Where possible minimize the use of disposable items
 - Kulacs, kanálgép, stb.: Link1
- 4) Buy environmentally friendly products with recycled content
 - Zöld boltok: Link1 Link2 Link3
 - Újrahasznosított toalettpapírok, törlőkendők, szalvéták stb.: Link1
- 5) Use environmentally responsible cleaning products on location
 - Környezetbarát tisztítószerek: Link1 Link2
- 6) If composting is available, provide food waste bins for use on set
 - Komposztálók: Link1
- 7) Provide facilities for the disposal of chewing gum and provide butt buckets or personal/pocket ashtrays for cast and crew
 - Hamutartó: Link1
- 8) Identify any unique guidelines or regulations associated with the location including local protocols
- 9) Identify potential environmental impacts when assessing film locations for health and safety risks
- 10)Include environmental protection control measures in call sheets to raise awareness among cast and crew
- 11)Use spill kits and storm water drain covers as part of the standard equipment for working on location
 - Mentesítő készletek: Link1 Link2



Art + Set Dec + Construction

From script to vision, from design to build, from shooting and wrap; planning is everything when sourcing materials, building sets, and diverting waste from landfills.

- 1) Reuse old props
- 2) Use existing locations
- 3) Purchase your props in the thrift store or at flea markets
- 4) Sell or donate unwanted set materials to local theatres, high schools, acting schools or other productions before opting for disposal
- 5) Support charities that are willing to pick up, recycle and reuse materials
- 6) Where appropriate select paint and products with environmentally friendly labels FSC certificate and water-based paint
- 7) Dispose of paints and other hazardous materials in a responsible manner, e.g. returning paints to retailers, storing paints for future use
- 8) Do not allow paint or residuals from washing paint brushes to enter storm drains
- 9) Use recycled wood or wood from managed forests (Avoid Old Growth or endangered species)
- 10)Rent or lease larger items such as furniture and computers as an alternative to purchasing
- Magyar Környezettudatos Építés Egyesülete: Link1
- Zöld nyomda: Link1 Link2
- Újrahasználati központ: Link1

Camera + Sound

- 1) Unplug video players, monitors and other similar equipment
- 2) When purchasing or renting equipment ask about energy-efficient alternatives or enquire about more efficient ways to use the equipment
- For artificial lighting there are sustainable options. One of these is LED
- Plasma and fluorescent lighting are also more sustainable options
- 3) Where quality allows, use digital processes for filming and sound recording
- 4) When using film, check that your suppliers have end of life management programs compliant with local regulations for disposal of photographic processing chemicals
- 5) Avoid sending waste film to landfills by asking your supplier about recycling or other ecofriendly options



Catering + Craft Service

Perhaps the most important: inform the crew. You avoid a lot of misunderstanding, questions or ambiguity by making clear what you are trying to achieve as caterer.

- 1) Encourage the use of reusable cutlery, plates and cups rather than using disposable items
 - Zöld csomagolóanyagok, dobozok: Link1
- 2) Buy organic and locally grown food to help offset greenhouse gas emissions and other pollutants associated with the transportation of food. Follow the seasons.
 - Címke adatbázis: Link1
- 3) Apply fair trade principles when selecting imported food products e.g. coffee, tea, chocolate and bananas



- 4) Introduce a recurring weekly meatless day: Meatless Monday or Veggie Friday
- 5) Don't let the crew serve themselves. Most people put too much on their plate. If they want more they will come back for seconds
- 6) Arrange doggy bags with leftovers that the crew can take home at the end of the day
- 7) Ensure that recycling facilities are available on location, for plastic, glass, cans and metals
 - Szelektív szemetesek: Link1 Link2 Link3 Link4
 - Kommunális zsák: Link1
- 8) Use lunch locations as places to post and inform cast and crew of good environmental practices
- 9) Get rid of plastic water bottles. Install one or more taps with tap water and make sure your crew has access to reusable water bottles or glass
- 10) Encourage the use of personal travel mugs to discourage the consumption of disposable waxed paper cups
 - Kulacs, kanálgép, stb.: Link1

11) Dispose of liquid wastes at approved disposal sites; DO NOT use storm drains

• Hulladékudvarok (szelektív hulladék leadás): Link1



- 12) Do not use disposable wipes or TORK-rolls but washable sponges and dishcloths
- Fenntartható vendéglátóhelyek: Link1
- Környezetbarát ételrendelő szolgáltatás: Link1
- Ételmentés: Link1

Costume

- 1) Purchase second-hand or recycled clothing and accessories when appropriate
- 2) Support Hungarian designers with environmental credentials
 - Fenntartható, etikus Magyar márkák: Link1
- 3) Avoid the use of garments and accessories made from endangered species
- 4) Repair and alter garments rather than buying new
- 5) Avoid clothes requiring Dry Cleaning processes
- 6) Prefer dry-cleaners who use energy-efficient machines and do not use the solvent perchloroethylene
 - Bio ruhatisztító: Link1
- 7) Re-use coat hangers and plastic garment covers
- 8) Store and recycle garments/costumes when possible

Grip + Electric

- 1) Check the possibilities for connecting to the electrical grid, for example through public power outlets
- 2) Use hybrid or electric generators on set, such as the <u>True Hybrid</u> or the <u>Firefly</u>, or use mobile batteries on green energy or solar power, like the <u>Green</u> <u>Battery</u> and <u>Solar Transformer</u>. They are silent in use and much more efficient in terms of transport. Read about the experience of gaffers with the True Hybrid on set in <u>this report</u>. Read <u>in this article</u> about the Green Battery and Solar Transformer.
- 3) If you still need to use a normal generator, see if you can fuel it with HVO biodiesel. HVO biodiesel, by for example <u>Goodfuels</u>, is produced from 100% certified waste streams and is 90% carbon neutral. It also reduces exhaust by 30%



and thus improves air quality. Alternatively, refuel with GTL (gas to liquid) instead of diesel. GTL diesel is made from natural gas. GTL gives much less pollutants when burned. Modern engines can usually take GTL without modification.

- 4) Don't have two generators on set.
- 5) Replace flickering, dim and burned out lamps
- 6) When replacing light bulbs, replace with lower-wattage, longer life, cool lamps or energy-efficient alternatives such as fluorescents
- 7) Use dimmers to rest lights between setups rather than switching lights on and off
- 8) Encourage the use of fluorescent lights for work areas on location
- 9) Use environmentally considerate textiles on frames instead of poly based materials for bounce and filtration
- 10) Recycle color gels so that they can be used in future production

Make-up + Hair

- 1) Favor make-up, hair and cosmetic brands that use less packaging
- 2) Where possible select make-up, hair and personal care brands committed to avoiding animal testing and the use of ingredients that cause adverse health effects e.g. products that are cruelty-free and meet the criteria of the Compact for Safe Cosmetics
 - Companies that do NOT test on animals: Link1
 - Companies that DO test on animals: Link1
- 3) Use refills to avoid disposing of non-recyclable make-up containers
- 4) Investigate organic alternatives for make-up, hair care and personal hygiene products
 - Organic make-up brands: Link1
 - Organic hair care brands: Link1
- 5) Have recycling bins readily available to make-up staff
- 6) Avoid the use of aerosols containing ozone-depleting substances
- 7) Where possible purchase in bulk to avoid unnecessary travel
- 8) Consider also sustainable varieties of products such as cotton balls, swabs, remover and lotion



Post Production + Visual Effects

- 1) If available and appropriate, use digital post-production workflow systems
- 2) Avoid tape
- 3) Make use of the energy saving features for equipment and computers
- 4) Where compatible with clients, distribute projects and demonstration reels on DVD or via other digital means
- 5) In the office environment, apply purchasing, energy efficiency, water conservation and waste reduction practices
- 6) If using traditional film, consider appropriate water filtration systems when processing film

Special Effects + Stunts

The integration of physical and visual effects ensures that impacts to the environment are lessened.

- 1) Reduce environmental impacts by using water based smoke fluids
- 2) Where possible, use propane rather than liquid fuel for fire effects
- 3) Recycle scrap steel and aluminum
- 4) Refer to Material Safety Data Sheets (MSDS) for artificial snow products

Production Office

Many of the activities involved in motion picture production are office-based.

This can include the actual production office as well as satellite offices such as Post Production, Construction and Corporate Offices. As with any business, there are environmental impacts associated with day-to-day office activities including paper use, energy and water use, waste generation and transportation.

It is up to each and every one of us to change our habits to promote a green environment. By practicing the 3 R's – reduce, reuse and recycle, we can minimize the environmental impacts associated with many office-based activities.



Paper usage – Avoid it!

- 1) Use apps/paperless script solutions to reduce your paper use or go paperless all together it can be done!
 - Scriptation: Link1
- 2) TBYP think before you print assess whether a hard copy is necessary
- 3) Enforce a no paper policy
- 4) If printing is necessary:
- Select double-sided printing by default
- Print only revised script pages
- Choose the option "eco printing" if your printer supports it
- Look at <u>www.ecofont.com</u> for alternative ways to save ink
- A budget alternative is use the font Times New Roman. It will cost relatively the least ink of the standard fonts.
- 5) Print scripts by demand only
- 6) Create a recycling plan for the production office
- 7) Ensure paper recycling bins are readily available
 - Szelektív szemetesek: Link1 Link2 Link3 Link4
- 8) Purchase recycled paper products with eco-labels
 - Zöld nyomda: Link1 Link2
- 9) Use recycled ink cartridges where available
- Papír elszállítás, irat-megsemmisítés: Link1

Energy usage

- 1) Use lighting that significantly reduces energy usage (i.e.: CFLs, or lower wattage bulbs)
- 2) Use specific task lighting to light work areas and lower the height of light fixtures to increase usable light
- 3) Open blinds and use natural lighting when possible



- 4) Install dimmers or occupancy sensor switches in low use areas like stairwells, washrooms and storage areas
- 5) Turn off non-essential and decorative lighting, especially in unoccupied areas
- 6) Turn off computers, monitors, printers and photocopiers when not in use, overnight and on weekends. If unable to switch off the entire computer, turn off the monitor and printer. Don't use screen savers
- 7) When buying computers, monitors, printers, and photocopiers, favor models with good energy-efficiency ratings that can switch to a power-saving mode when not in use
- 8) Use a laptop computer instead of a desktop computer
- 9) Unplug chargers for mobile phones, cameras and other equipment when not in use
- 10) When purchasing or renting equipment, ask about energy efficient alternatives or enquire about more efficient ways to use the equipment
- 11) Ensure that refrigerators and freezers operate efficiently by defrosting regularly and check that they are set to the optimum temperature
- 12) Choose a web hosting provider that has sustainability high on the agenda, like <u>Green Host</u>.
- 13) Try not to use air conditioning but fans instead.
- 14) Check the possibilities to install solar panels on your office roof.

Water: Heating, Appliances, Wastewater

1) Use energy efficient appliances (refrigerators, dishwashers, etc.)



- 2) Ensure that washing machines and dishwashers are used with full loads or use economy settings
- 3) Turn your thermostat down
- 4) Where possible use the cold wash setting
- 5) Use environmentally friendly cleaning products
 - Környezetbarát tisztítószerek: Link1 Link2
- 6) Discourage staff from leaving water running



- 7) Identify and prevent hazardous substances from entering wastewater and storm water systems
- 8) Provide spill kits and storm water drain covers and train designated staff in their use
 - Mentesítő készletek: Link1 Link2
- Use the <u>economical vacuum toilet trailer</u> or the <u>WC Flex</u> to use the bathroom. Neither has to be connected to a sewer or water line.

Waste disposal and Recycling

- 1) Provide adequate facilities for recycling paper, glass, aluminum, plastic and cardboard
 - Szelektív szemetesek: Link1 Link2 Link3 Link4
- 2) Raise staff awareness about recycling facilities in the office and on location
- 3) Collect organic waste and convert it to compost in a bin
 - Komposztálók: Link1
- 4) Replace disposable products with durable alternatives
- 5) Support products with recycled content over those made from virgin materials
- 6) Ask suppliers to take back packaging for large items such as computers and furniture
- 7) Recycle printer cartridges/Use refillable cartridges
- 8) Use rechargeable batteries and dispose of batteries properly
- 9) Monitor the amount of waste going to landfills
- 10) Provide reusable, recyclable and/or biodegradable serving products, instead of Styrofoam and plastic products
- 11) Recycle redundant computers, monitors and printers
- 12) Return redundant mobile phones, batteries and paint to retailers for recycling
- 13) Dispose of any unavoidable waste safely
- Mit hova dobni/vinni: Link1



Transportation

A mobile industry working in isolated areas needs to consider all means to lessen emissions and find new ways to move people and equipment.

- 1) Plan to take only the trucks and technical equipment needed for the day to location
- 2) Develop environmentally responsible leasing/rental practices for vehicles to include fuel efficiency and maintenance practices
- 3) Use alternative fuel vehicles, e.g. hybrids, electric, ethanol or bio diesel
- 4) Purchase the cleanest fuel available
- 5) Maintain appropriate tire pressure
- 6) Monitor fuel efficiency by tracking mileage and fuel consumption
- 7) Investigate ways of reducing unnecessary travel, such as teleconferencing (video chat or audio)
- 8) Encourage above the line talent to share trailers in order to be eco-friendly
- 9) Raise crew awareness of fuel-efficient driving
- 10) Drive smoothly without harsh acceleration; speeding off the mark can use up to 60% more fuel
- 11) Change gears efficiently changing gears at 1500 to 2500 rpm can save up to 15% on fuel
- 12) Don't rev the engine unnecessarily this wastes fuel and increases emissions
- 13) Keep speeds down to optimize fuel consumption
- 14) Avoid unnecessary idling. Turn off your engine when stuck in traffic.
- 15) Concentrate, look ahead and anticipate road conditions and other people's actions. This reduces the need for hard braking and acceleration
- 16) Avoid short journeys and only make essential car journeys. Walking or public transit are always options
- 17) Short journeys on a cold engine use up twice as much fuel as a warm engine, producing more emissions
- 18) Plan journeys to avoid peak periods, roadwork, and getting lost
- 19) Air conditioning increases fuel consumption by up to 2 liters per 100 km
- 20) Provide incentives for crew members to car pool
- 21) Utilize <u>Skyliner</u>, the special multifunctional location trailer By combining functions in one trailer, you save a lot on transport and lower emissions

Zöld taxi: <u>Link1</u>



Carbon Calculator

http://greenfilmmaking.com/toolkit/carbon-calculators/

Suppliers

http://www.greenshoot.com/services/suppliers

More tips and tricks

https://greenfilmmaking.com/toolkit/production/ http://greenfilmshooting.net/blog/de/guidelines/ http://www.greenproductionguide.com/tools/best-practices/

