



Environmental Media Association

“Green Seal” Guidelines

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# 1 Overview

## **Hollywood is a Critical Agent for Change**

Hollywood is routinely considered a first mover in terms of recognizing and highlighting topics of importance and working towards social change. Because it has the opportunity to reach such vast numbers of people at any given time, Hollywood has an otherwise unmatched ability to shape attitudes and beliefs, and through its actions to ultimately bring about both individual and social change.

At this time, the film and television industry has the incredible opportunity to not only focus its messaging on environmental issues, but to show, from a first hand perspective, that changes favoring ecology and sustainability are not only feasible, but that they are beneficial and necessary.

With this opportunity follows a commitment; a dedication that not only highlights environmental concerns, but also that strives to tackle them head on. A commitment and initiative for the industry to look within itself at its own production processes and actively work to reduce consumption, waste, and emissions of greenhouse gases.

## **What is a Green Production?**

Today, when people hear the term “green” they often immediately think of carbon offsets. The “Green Production / Green Seal” program does not simply envision “carbon neutrality,” nor does the purchase of offsets suffice for the operational improvements that can be implemented during a production. A “Green Production” goes far beyond just purchasing carbon offsets because reducing energy demand and decreasing the amount of waste sent to a landfill will have a much broader impact on our environment and our communities.

## **Why Work to Green a Production?**

Film and television productions require the coordination of vast amounts of resources and untold numbers of people, all within fairly specific timeframe and cost constraints. The creation of sets, filming on location, and transportation of all involved in the overall process ensures that productions are incredibly intensive consumers of resources and creators of waste.

Recently, this has become more of a top line issue that is drawing the attention not only of environmentalists, but also those within the industry itself.

By effectively taking these factors into account during each stage of production, the incorporation of even simple acts can dramatically decrease the amount of energy used as well as waste created during any film or television production.

### **How EMA Can Help**

EMA, through its “Green Production / Green Seal” program, seeks to establish a common standard of what a “Green Production” entails and to recognize environmental leadership within the motion picture and television industry.

While certain aspects of greening a film or television production require very little effort and forethought, some initiatives necessarily involve effective planning and decision-making. The “Green Production / Green Seal” program will act as a resource for reliable and relevant information and resources, and EMA will act in an advisory role to help lessen the impact of the production.

EMA will be there every step of the way, with personalized, on-location assistance if necessary, because through mindful planning and execution, the environmental footprint of a production can be considerably reduced and Hollywood can continue its tradition as a catalyst for social change.

### **How This Guide is Organized**

These guidelines are divided into eight sections, beginning with “Getting Started” and concluding with “Filming and Post-production”. It encompasses a broad scope of areas to consider when planning and executing a production.

Whether one or all of the sections of this guide are implemented, the most important thing to remember with every step is to **always reduce first**.

As with every section in this guide, the ultimate goal is to reduce consumption of resources. Thus, throughout the entire production process, everyone should strive to reduce total energy consumed, the number of miles traveled, and/or waste generated.

When beginning this process, don’t be overwhelmed, just begin with one area if you’d prefer. Start there and build on your progress as time and resources allow. The most important thing is just to start the process of lessening the production’s impact on the environment.

The following sections cover the following areas: Getting Started, Energy Generation, Material & Sets, Waste Disposal, Transportation, Office Operations, Food & Catering, and Filming and Post-Production.

# 2 Getting Started

In order to successfully make a production environmentally sustainable, it is necessary for one to first set goals and objectives that can be achieved. This process requires an analysis of the production process and a determination of which steps would achieve best results.

## Setting Goals and Objectives

Such an analysis inevitably leads to specific questions which will help to shape the initiatives chosen as well as frame the overall environmental focus during the production. Such questions include:

- Are there any issues that are personally relevant and/or are of specific importance to the production?  
The answer to this question will provide a focus on where to spend time and resources during the planning stages. If certain issues are deemed important, focus should be placed on them. It will also help to bring related issues into relief. Is the priority to cut down on emissions? Or is to reduce the overall amount of waste? If so, what other steps can be taken to impact these goals?
- How much can be budgeted towards environmental initiatives?  
Is there any sort of financial commitment to support the implementation of green production practices? While many practices should result in cost savings for a production, some choices may have an initial cost premium that must be covered. It is advantageous to have this knowledge beforehand so as to adjust plans accordingly.
- Are there any logistical constraints to successful implementation?  
In a similar vein to the first question and answer, if there are logistical constraints to any objectives, then alternative methods must be devised. For instance, if reduction of waste is important, but the production requires numerous sets, what other steps can be introduced?
- Which steps have the greatest benefit?  
It is sometimes difficult to know which actions have the greatest or most dramatic benefits for the environment, and thus it becomes difficult to set objectives. The following section outlines some of the easiest gains that can be achieved during a production.

## **The Low Hanging Fruit**

- Recycling/Reuse/Donation  
One of the main sources of waste in film and television production comes from set materials. By planning ahead for proper disposal of such materials, a production can divert vast amounts of resources from the landfill and provide a second life to many of the resources.
- Biodiesel Generators  
Generators that run on biodiesel can produce up to 60% less emissions than those on normal diesel fuel. Often, at little or no added cost.
- Renewable Energy on the Lot  
The use of renewable energy drastically reduces greenhouse gas emissions while supporting clean alternatives within the energy industry.
- Appoint an Environmental Assistant  
Assign a PA to the line producer the responsibility of ensuring lights and electronics are turned off, that recycling is taking place, and trailer generators aren't in use when they will be vacant for certain periods of time. This can effectively save energy, fuel, money, and promote conservation of resources.
- Reduce Unnecessary Travel  
During the lead up to shooting, check to see if all travel is necessary for all individuals. Telecommuting, email, Skype, phone, and instant messenger are all effective and practical methods of reducing travel miles while staying in contact.

## **Creating an Environmental Action Plan**

Once there is a commitment to implement green production practices, a plan must be conceived and put into place. This plan will provide the compass by which all involved in the production process can work towards these predetermined, common goals. Such plans should be created for (1) energy sourcing; (2) materials sourcing and waste; and (3) transportation. If possible, these plans will include timetables, sourcing information, and possible alternatives if the original plan faces unforeseen difficulties.

Initially, planning for a green production may seem foreign, and possibly overwhelming. But the overall process doesn't change; instead the scope of the process is simply expanded to account for certain environmental requirements.

For convenience, we have included an environmental scorecard (Appendix A), which includes most, if not all of the criteria to cover the greening of a production. This scorecard should hopefully act as an additional roadmap for all involved in the

implementation of the environmental plan and help to keep these requirements in sight throughout the production process.

### **Communicating Objectives of the Environmental Action Plan**

Expectations for greening the production process should be clearly communicated to all involved, especially if the policies and practices are new. This communication begins with the producer who has the ability to highlight environmental concerns in initial meetings, but it then carries down to all others on the shoot. The department heads must let everyone below know which policies are being implemented, why they are important, and what steps will be taken to achieve all stated goals.

If possible, the 1<sup>st</sup> A.D., production manager, line producer, production coordinator, and the construction manager(s) should all be providing consistent messaging to the crew. The clearer the messaging, and the more it is highlighted, the quicker that others will buy into the program and its goals.

# 3 Energy Generation

**Objective:** 100% Renewably Sourced Power

**Pilot Objective:** 20% Renewable Power

## AN IMPORTANT NOTE THAT MAY SAVE YOU MONEY

Before looking into possible forms of energy generation, strategies should first be employed to reduce overall energy consumption. Reducing consumption has two large benefits – first, it will save money; second, it organically eliminates emissions. Attention should be paid to the following areas to minimize your total electricity usage:

- Types of Light Bulbs  
Insure all your light bulbs are compact fluorescent or LED's and not incandescent or tungsten light bulbs. Incandescent light bulbs are notoriously inefficient sources of lighting. Approximately 95 percent of the bulb's energy is lost in the form of heat, which can also increase the cooling load of the air conditioning. Additionally, incandescent bulbs consume approximately 2/3 more energy than a comparable compact fluorescent light bulb (CFL). Finally, incandescent bulbs do not have a very long life span; a standard incandescent has an average life of 1,000 hours whereas a CFL has a life of 10,000 hours.
- Standby still consumes electricity. Completely turn off all electronic devices when not in use.  
Consumer electronics are a considerable drain on electricity. Most electronics manufactured today enter into a standby mode when turned off which means they are still continuing to draw an idle current despite being powered down. Additionally, chargers for phones, PDA's, Blackberry's, iPods and others can all consume up to 5 watts per hour each, despite being fully charged or not being plugged into any devices.
- Minimize the amount of heating and cooling in empty buildings and trailers.  
One of the largest consumers of electricity is the heating and cooling system. If the building is going to be empty for an extended period of time, make sure the thermostat is turned down to the point that the system is off. Similarly, if a trailer is empty, make sure the generator is turned off. Generators consume large amounts of fuel per hour, which leads to increased costs as well as emissions. When done shooting for the day, call utility services before leaving to have shooting power and the HVAC turned off before leaving.

View the energy efficiency and energy generation section of the scorecard for more information on actionable steps that can be taken.

## **Overview**

Electrical power is generated either onsite via diesel generators or through a local utility's power plant. Depending on the location and facility, a production might be using both types of power. Typically, buildings and fixed structures are wired for utility-based power while trailers and temporary structures often are paired with onsite generators fueled by standard diesel.

Each of these forms of electrical power can be changed to renewable or "greener" energy through a few quick and simple steps. A great majority of local utilities offer green power. And most generators can operate on a blend of at least 20% biodiesel fuel.

## **Assessment**

- (1) Find out what methods of electricity exist at your location. Typically, both types of power generation – onsite generators and utility-based power – will be used.
- (2) If onsite generators exist, find the name and contact information for the company that supplies the generators can legally operate on (depending on the generator's model and make, warranties only cover a certain percentage blend of biodiesel).
  - If you have not yet leased or purchased generators, ask for units that are able to operate on more than 50% biofuel.
- (3) If utility based power (a power bill from the utility) exists, contact the utility and sign up for their green power program. It's that easy. If no green power program exists, purchase renewable energy credits (see below for details).

## **Solutions for Onsite (Auxiliary) Power Generation**

As mentioned above, the use of alternative fuel generators is most beneficial. Eventually, fuel-cell generators will be available that produce zero emissions but until the technology becomes commercially viable, the best option is to use biodiesel.

Biodiesel contains no petroleum, is simple to use, biodegradable, non-toxic, and essentially free of sulfur and aromatics. Note that biodiesel is named by the percentage of biodiesel in a diesel blend. For example, B20 means 20% consists of the renewable fuel created from biodiesel; the remainder is regular diesel fuel.

Biodiesel can reduce emissions by up to 60% depending on the blend used. To cut down on transport miles it is best to use biodiesel that is grown and produced locally (in the United States, soy or grease-based fuels are good options.) We recommend not using palm oil.

## **Solutions for Utility Purchased Power**

First, contact your utility and, if available, enroll in the green power program. If no program exists or if the program is prohibitively expensive, a secondary market exists to purchase renewable energy credits (i.e. a form of power).

Electricity on the grid has two components – the electricity itself and the method of generating the power. “Credits” have been created for power generated from renewable sources and these “credits” can be purchased separately from electricity. Therefore, if purchasing green power from your utility isn’t feasible, purchase renewable energy credits from an organization such as the Bonneville Foundation.

# 4 Materials & Sets

**Objective:** Use sustainable sourcing for material and set needs

## **IMPORTANT NOTE THAT MIGHT SAVE YOU MONEY**

More and more studios are saving and reusing set materials as well as set walls after a production. If filming on a lot, check with the studio to determine if certain set props and materials can be rented rather than purchased and constructed from scratch.

### **Overview:**

Environmental responsibility in terms of materials is achieved through two channels – demanding sustainable products from suppliers and conserving the material that is used. Productions literally use tons of materials and much of it goes to waste. Therefore, make sure it is purchased and disposed of properly.

### **Assessment:**

- (1) Create a list of all materials and items needed for the production. Identify any materials that you know can be sourced in an environmentally-friendly fashion. A quick list of such materials includes:
  - Wood – make sure it is FSC (Forest Stewardship Certified) and not made from any tropical hardwoods such as lauan.
  - Paint – use low-VOC (volatile organic compounds) and water-based paint
  - Bamboo and organic textiles are becoming more cost competitive and popular
  - General – make sure nothing is made from PVC (polyvinyl chloride)
- (2) Identify all items that can be rented instead of purchased. Wherever a prop or structure can be rented and reused instead of built or purchased, it is the best option. In addition, ask for rented props made from sustainable wood and materials. Even if the company doesn't have sustainable rental pieces, each new customer demanding it will help to change business practices.
- (3) If the material has to be purchased and constructed, “design for disassembly.” This means that all stage and infrastructure should be designed and constructed to facilitate easy deconstruction. This might include (a) designing to standard dimensions of the material (e.g. 4' x 8') so that sheet goods can be salvaged full-size (no cutting); (b) using screws and bolts for fabrication as opposed to adhesives and nail guns; and (c) engaging a deconstruction contractor at the outset to prepare for dismantling and recycling / donating. (Covered in “Waste” section)

### **Solutions:**

Some tips on the purchase of environmentally responsible materials:

- Try to use recycled materials. If this is not possible, make every effort to use sustainable materials such as bamboo, homastote, non-PVC materials, natural textiles, or reclaimed materials.
- Make efforts to source products locally to eliminate the need for harmful emissions from airlines and trucks. Trucks will have to bring materials and products in from a location, so, if possible, ask that all deliveries are made with biodiesel trucks.
- For all wood purchases, use Forest Stewardship Certified (FSC) or Scientific Certification Systems (SCS) certified woods. Do not purchase wood that is labeled Sustainable Forest Initiative (SFI) certified.
- Utilize green material such as cork flooring, homastote walls, sisal area rugs, and salvaged wood where possible.
- Use water-based – instead of solvent-based – paints to minimize toxic emissions. Water-soluble latex paints typically contain fewer volatile organic compounds (VOCs are chemical compounds that harm the environment and humans), generate fewer odors, and will eliminate the need to use paint thinners to clean surfaces.
- If paint removal is required use plant based paint strippers.
- If adhesives are needed, make sure they are low VOC.
- Avoid toxic materials. Certain building materials should be avoided to the greatest extent possible, including PVC (polyvinyl chloride or “vinyl”), materials containing phthalate plasticizers, materials containing brominated-flame retardants, and arsenic or chromium-containing preservative-treated wood.

# 5 Waste Disposal

**Objective:** Over 80% recycle / reuse

## **IMPORTANT NOTE THAT MIGHT SAVE YOU MONEY**

An environmentally sustainable way of saving money on waste and disposal costs is to look for ways of donating set materials and props. Various non-profit organizations will accept donations of furniture, some clean lumber, large pieces of carpeting, doors, appliances, and windows among other materials. Not only will the donation of such materials insure their diversion from the landfill, but will also provide cheap materials to organizations that can put them to good use.

If the materials and set pieces are from a production on the lot and can't be donated, look to the in-house reuse program. Set walls as well as some specific props and materials will be kept for reuse in other productions. This will also divert waste thereby reducing the amount of waste and the subsequent cost of such disposal.

### **Overview:**

There are a number of organizations that focus on donation and reuse before resorting to disposal of waste materials. Such organizations will help to reduce overall amounts of waste created and provide much needed materials to other groups and non-profits.

Make the proper disposal of such waste a simple exercise by calling the organization beforehand. This gives them enough time to make the appropriate contacts and work to locate necessary donors.

### **Assessment:**

- (1) Determine the extent of recycling capabilities at the location of filming. If filming on the lot, contact the environmental or waste departments and order enough recycling bins to place alongside each garbage can.
  - If filming on location, determine which recycling company should be contacted through the local municipality website. Refer to organizations such as Earth911 for other recycling information and drop off spots.
- (2) Insure that construction of sets have been “designed for disassembly.” All stage and infrastructure should be designed and constructed to facilitate easy deconstruction. This might include (a) designing to standard dimensions of the material (e.g. 4' x 8') so that sheet goods can be salvaged full-size (no cutting); (b) using screws and bolts for fabrication as opposed to adhesives and nail guns; and (c) engaging a deconstruction contractor at the outset to prepare for dismantling and recycling / donation.

- (3) Contact non-profit organizations to inquire about donation of set materials and props. Often pick-up and delivery will be provided by the organization, but it will always have to be prearranged.
- (4) For all materials that can't be donated or reused, call organizations that focus on deconstruction and diversion from landfills. Set an appointment for a consultation regarding the possibility of recycling.

### **Solutions:**

There are numerous organizations and companies that are devoted to assisting the film industry in diverting waste. These range from non-profits that accept donations of materials, goods, and props to companies that specialize in deconstruction of materials and the recycling, resale, or donation of raw materials.

The services provided by these organizations vary in price, logistical constraints, and commitment on the part of the production crew. Each of the organizations below can help to divert massive amounts of waste from the landfill.

#### FaERI

FaERI is a new non-profit organization based in the northeast. For less than the cost of production assistant over the course of the shoot, FaERI will provide an on-site assistant dedicated solely to recycling and diversion of waste. The FaERI representative is treated just as another crew member, is trained in matters of recycling and waste diversion, and brings their own recycling bins. Throughout the day, this "on set recycler" keeps the waste sorted, the bins managed, and is responsible for bringing it to a local recycling facility. As the service becomes more well known, the organization will expand to other cities and locations as needed.

#### The ReUse People

The ReUse People is a non-profit organization that will work with the movie productions to break down and dispose of the sets. The organization will break down the set entirely, and wherever possible will find other organizations through which materials can be donated. Any further materials will be disposed of with an emphasis on recycling set materials. Time required for set breakdown is based upon the variety and extent of materials and as a general principle will cost more than simple set demolition.

#### Looney Bins

Looney Bins is an organization that specializes in waste diversion and recycling. Looney Bins will drop off a waste bin on location and then will pick it up on a prearranged date. Any materials thrown into the bin will then be taken and divided into waste and materials that can be recycled. Following each pick up and diversion, metrics can be provided which detail the amount of total waste, the amount recycled and the amount taken to

landfill. The cost of Looney Bins is generally up to 5 percent greater than standard garbage service to the location.

### L.A. SHARES

L.A. SHARES is a non-profit materials reuse program which takes donations from local business organizations and redistributes the materials to other non-profits and local schools. The service is free of charge throughout Los Angeles County and arrangements can be made for free pick up from locations.

### Earth911

Earth911 is an online portal that provides a directory of recycling drop off locations based upon the type of material to be recycled. The directory has multiple sections including automotive, household, lawn and garden, electronics, and plastics.

### Hollywood Cinema Production Resources

Hollywood CPR is a non-profit organization offering vocational training to underprivileged individuals wishing to gain experience in the artists, crafts, and technicians departments. HCPR runs a non-profit “prop house” which accepts donations of props, set dressings, furniture, tools, and lumber.

### Waste Management – Temporary Disposal

Waste Management provides on-site, temporary bins and roll-offs that can be delivered and picked up on schedule.

### Green Planet Productions

Green Planet Productions is a new organization that specializes in on-set recycling. For a fee, Green Planet Productions will staff a production with a “green PA” who takes care of all recycling needs, including proper disposal of the waste. GPP is involved in a “finder program” through which suitable materials can be donated rather than thrown away.

# 6 Transportation

## **Objective:**

Use of fuel-efficient vehicles, commercial over private air travel, consciously planning for one less flight per person (where available).

## **IMPORTANT NOTE THAT MAY SAVE YOU MONEY**

A good deal of money can be burned through expenditures on unnecessary travel. Try to have an approval process set up for airline travel, which focuses on whether or not the travel is absolutely necessary. If a meeting can be held by conference call or through video conference, it will save vast amounts of CO2 emissions as well as money.

## **Overview:**

In the production of a film, and less so in television, the need to travel to a distinct location or transport necessary materials is a requirement that often cannot be avoided. However, it's important to remember that these flights place a burden on the environment through air pollution including nitrous oxide (acid rain) particulate matter (smog and unhealthy air to breathe) and greenhouse gases (adds to global warming). Travel is inevitable and so no advice found below will completely eliminate the resulting pollution, however it will possibly reduce the resulting overall footprint.

## **Assessment:**

Create a list of all transportation needs during the production of the film. Include the needs for all staff, crew, talent, and any contractors. This list will form the basis for decision making when it comes to greening travel needs. First, look for any trips that can possibly be replaced with video or conference calls. Companies around the world are beginning to use new conferencing technologies to save tens of thousands of dollars through travel reductions. Second, if multiple people are traveling to the same location, determine whether it's possible to travel in groups on the same flight and carpooling once on the ground.

Third, for all ground travel seek eco-friendly car services from rental car companies and/or limos.

## **Solutions and Tips**

The ultimate goal is to reduce the amount of unnecessary travel through video and conference calls. This will eliminate a large environmental impact as well as save time and money. For all travel that must occur, plan ahead and try to travel in groups and to rent or hire environmentally friendlier transport such as commercial air travel and hybrid

or alternative fuel vehicles. Minimizing the number of unique miles that must be traveled is a fairly simple way of cutting down on emissions.

# 7 Office Operations

**Objective:** Minimize waste, environmentally friendly purchases, move towards paperless production, recycle

## **IMPORTANT NOTE THAT MIGHT SAVE YOU MONEY**

Any steps that can be taken to reduce consumption of resources and materials will save money. Therefore, there are some easy solutions, such as double sided printing or sending messages electronically rather than using a courier will lead to savings. All batteries should be of the rechargeable variety and ink cartridges should be recycled or remanufactured. For larger supplies such as electronics (i.e. computers and peripherals), all short term productions should rent machines instead of purchasing them outright. Rental companies refurbish and maintain machinery to maximize its performance and life and many will come with a warranty.

### **Overview:**

Individual office supplies are relatively inexpensive when purchased singularly, but in bulk, the costs add up. During a typical production, untold numbers of pieces of paper are tossed into the garbage. Small changes in habits and procedures can reduce this waste as well as certain office costs by up to 50 percent.

### **Assessment:**

- 1) Summarize your office and purchasing needs upfront. Ask yourself, “What can be eliminated or replaced by technology?” Can the production go paperless?
- 2) Whatever products cannot be reduced, purchase environmentally responsible products. Look for or ask your supplier for the following criteria for your products:
  - Paper and basic office products: Is it produced from recycled content? If so, what percentage? Is it unbleached?
  - Electronics: Does it meet Energy Star standards? Can I rent it and have it returned for later use?
  - Cleaners: Is it non-toxic? Ask your cleaning staff to use non-toxic products and turn off all lights at the end of the day.
  - General: Is it a carbon neutral product? Is it an otherwise “green” product?
- 3) Setup recycling bins and recycling signs across the lot and offices. Inform all staff about the recycling bins, what is recyclable, and recycling expectations. Make sure your waste management company recycles the materials and does not simply toss everything into a dumpster.

**Solutions and Tips:**

- In the office and on the set, leadership is paramount. Directors and actors must commit to recycling, printing scripts double-sided, receiving changes via email, and reducing their waste.
- Challenge your employees to create solutions and ideas to reduce the amount of waste that is created.
- Insure recycling bins are set up next to trash bins and make sure the bins and signs for recycling are apparent.

# 8 Food and Catering

## **Objective:**

To reduce waste associated with craft services and catering; whenever applicable, request locally grown, organic foods from catering.

## **Overview:**

Catering and craft services generally produce a large number of cardboard boxes, pallets, and other materials that end up in the garbage. Many of these containers, as well as bulk items such as ketchup, sauces, and dressings come packaged in recyclable materials.

In many instances, despite the fact that a majority of these materials can be diverted, they are simply thrown into the garbage.

Make sure that recycle bins are set up near the craft services and/or catering stations and ensure that everyone is aware of their location and use.

## **Assessment:**

It is inevitable that both catering and craft services are going to produce a good deal of waste. This waste does not have to end up in the garbage however.

Talk to craft services and catering and make them aware of your desire to recycle the proper materials. Make it clear that anything that is made of cardboard should be recycled. Make sure that recycling bins are located next to each trash can on the location to make recycling as easy as possible.

## **Solutions and Tips:**

Help the craft services and catering companies to understand exactly what and why you are incorporating recycling into the process. When requesting that they recycle all materials capable of being recycled provide them with clear cut examples of the sort of materials and/or product boxes that you want to see recycled.

Ensure that all recycling bins are properly and conspicuously labeled so that the entire cast and crew know what the bin's used for.

# 9 Filming & Post-Production

**Objective:** Reduce amount of waste by using digital cameras, enable the use of energy saving capabilities on all electronics, incorporate any applicable changes from the office section.

## **IMPORTANT NOTE THAT MIGHT SAVE YOU MONEY**

Any steps that can be taken to reduce consumption of resources and materials will save money. By turning off electronics when not in use, energy savings will be realized.

For electronics, all short-term productions should rent machines instead of purchasing them outright. Rental companies refurbish and maintain machinery to maximize its performance and life and many come with a warranty.

### **Overview:**

Environmental concerns for post-production are similar to those in any office environment. Steps should be taken to reduce the energy consumption, amount of materials used, and waste produced.

### **Assessment/Solutions/Tips:**

#### Energy Consumption:

- Ensure that all computers have their screen saver modes turned off and the hibernation/sleep mode enabled. This will reduce energy consumption during down times.
- Any electronics that do not require a continuous flow of electricity should be turned off completely – not just put in standby – when not in use.
- Wherever possible, ask for energy efficient or environmentally responsible technical and studio sound recording equipment. While there may not be a vast amount of materials on the market, if enough inquiries are made, suppliers will begin to get the message.

#### Reduction of Materials

- If anything needs to be printed, make sure to print double sided.
- The ability to use digital processing and electronic transfer of sound and images helps to reduce the use of tape and film.

- Ask catering to reduce the amount of packing materials used when food is delivered. If take out is ordered, request that the restaurant not use Styrofoam packaging.

Reduce Waste:

- Make every effort to recycle.
- Print double sided and use email, IM, and text rather than printing.
- When possible, distribute projects and demo reels on DVD with minimal packaging materials.

# Appendix A

## Quick View – Production Tips

### **Art/Construction Departments**

- Sell or donate unwanted set materials to local theatres, high schools, acting schools or other productions before opting for disposal
- Support charities that are willing to pick up, recycle and reuse materials
- Where appropriate, select paints and products with environmentally friendly labels
- Dispose of paints and other hazardous materials in a responsible manner
- Don't allow paint or residuals to enter storm drains
- Where appropriate, select products with environmentally friendly labels
- Use recycled wood or wood from managed forests (FSC)
- Rent or lease larger items such as furniture and computers as an alternative to purchasing

### **Camera and Sound**

- Unplug video equipment, monitors and other electronics and similar equipment
- When purchasing or renting equipment, ask about energy efficient alternatives (Energy Star where applicable)
- Where acceptable, use digital processes for filming and sound recording
- Avoid sending waste film to landfills by recycling

### **Catering and Craft Services**

- Encourage use of reusable cutlery, plates and cups rather than using disposable items.
- Buy organic and locally grown food to help offset GHG emissions associated with transportation of food
- Apply fair trade principles when selecting imported food products (teas, coffees, fruits)
- Ensure that recycling facilities are available next to each waste bin and allow for plastic, glass, cans, papers, and metal
- Use lunch locations as places to post and inform cast and crew of good environmental practices
- Encourage the use of personal travel mugs to discourage consumption of disposable paper cups

### **Costume**

- Purchase second-hand or recycled clothing and accessories when appropriate
- Support designers using environmental materials or otherwise have environmental credentials
- Avoid the use of garments and accessories made from endangered species
- Repair and alter garments rather than buying new
- Avoid clothes requiring dry cleaning, and if dry cleaning is needed, support those dry cleaners that don't use perchloroethylene (PERC)
- Re-use coat hangers and plastic garment covers
- Store and recycle garments/costumes when possible

### **Grip and Electric**

- Use biodiesel fuels whenever possible to avoid emissions when using generators
- When replacing light bulbs, replace with lower wattage, longer life bulbs such as LED or CFL
- Use dimmers to rest lights between setups rather than switching lights on and off
- Encourage the use of CFL lights for work areas
- Use environmentally friendly textiles on frames instead of poly based materials for bounce and filtration
- Recycle color gels so that they can be used in future productions

### **Make-Up and Hair**

- Favor make-up, hair and cosmetic brands that use less packaging
- Where possible, select make-up, hair and personal care brands committed to avoiding animal testing
- Use refills to avoid disposing of non-recyclable make-up containers
- Investigate organic alternatives for make-up, hair care and personal hygiene products
- Have recycling bins readily available to make-up staff
- Where possible, purchase in bulk to avoid unnecessary travel

### **Post-Production**

- If available, use digital post-production workflow systems
- Make use of energy saving features for equipment and computers
- Distribute projects and demonstration reels on DVD with limited amounts of packaging
- In the office, apply purchasing, energy efficiency, water conservation and waste reduction practices

### **Office**

#### *Paper*

- Think before you print and print double sided
- Create a recycling plan for the office

- Ensure paper recycling bins are readily available
- Purchase recycled paper products
- Use recycled/remanufactured ink cartridges

#### *Energy*

- Use energy efficient light bulbs such as CFL or LED
- Use task lighting to light work areas
- Use natural daylight as much as possible
- Install dimmers or occupancy sensor switches in common, low use areas such as conference rooms, kitchens, and restrooms
- Turn off computers and other peripherals when not in use, overnight and on weekends. Disable screensavers
- When buying computers, look for the Energy Star label.
- Use a laptop rather than desktop computer
- Unplug chargers for mobile phones, Blackberry, iPod, and other electronics
- When purchasing or renting equipment, look for energy efficient models

#### *Waste Disposal*

- Provide recycling bins throughout the office
- Raise staff awareness about recycling facilities in the office and on location
- Compost if possible
- Replace disposable goods with reusable alternatives
- Support products with recycled content over those made from virgin materials
- Ask suppliers to take back packaging for large items such as computers and furniture
- Recycle printer cartridges
- Use rechargeable batteries and dispose of batteries properly
- Ask your waste disposal company to monitor and provide metrics on the amount of waste going to landfills

#### **Special Effects and Stunts**

- Reduce environmental impacts by using water based smoke fluids
- Where possible, use propane rather than liquid fuel for fire effects
- Recycle scraps steel and aluminum

#### **Transportation**

- Develop environmentally responsible leasing/rental practices for vehicles that include fuel efficiency
- Use alternative fuel vehicles such as hybrids, electric, biodiesel
- Practice efficient driving techniques
- Avoid idling.
- Provide incentives for crew members to car pool.

# Appendix B

## Pre-Production Planning

- 1) Who are the people involved in and responsible for carrying out an environmental plan?
- 2) Are there any specific goals or reasons for implementing an environmentally responsible production (cost savings, reputation, regulations, waste reduction, awards)?
- 3) Do the production or production company have an environmental policy currently in place? If so, what are the main points of emphasis?
- 4) If there is a current environmental policy are there procedures currently in place?
- 5) What are the major environmental impacts occurring because of the production (travel, energy consumption, waste, paper usage)?
- 6) What are the main services that are contracted for within the production? Can sustainable/environmental principles be included in the contract stipulations?
- 7) What are the major items consumed in terms of cost? Of volume? Can sustainable/environmental principles be included in the contract stipulations?
- 8) Based upon best estimates, what types of waste will be created? How much of each type?

# Appendix C

## Sourcing Information – (Work in Progress)

### Renewable Energy Credits

Environmental Protection Agency – REC Page

- <http://www.epa.gov/grnpower/gpmarket/rec.htm>

### Green Utility Resources

To determine if Green Power can be purchased in your area, look to the EPA Green Power Locator: <http://epa.gov/greenpower/pubs/gplocator.htm>

LADWP – Green LA Program

- 1-800-GREEN LA (1.800.473.3652)
- [http://www.ladwp.com/ladwp/areaHomeIndex.jsp?contentId=LADWP\\_GREENL A\\_SCID](http://www.ladwp.com/ladwp/areaHomeIndex.jsp?contentId=LADWP_GREENL A_SCID)

Burbank Water and Power – Green Energy Champion

- 818.238.3700
- <http://www.burbankwaterandpower.com/green-energy.html>

### Auxiliary Power / On Set Operations

Green Power Generators

- <http://www.line204.com/cart/gpg.asp>

Standard Biodiesel

- <http://www.standard-biodiesel.com/index.html#>

NILA Lights

- <http://www.nila.tv/>

### Materials and Sets

TBC

### Waste Disposal

FaERI

- <http://faeri.org/index.html>

The ReUse People

- <http://www.thereusepeople.org/?langselect=SC>

Looney Bins

- <http://looneybins.com/>

L.A. SHARES

- <http://www.lashares.org/>

Earth911

- <http://earth911.org/>

Hollywood Cinema Productions Resources

- <http://hollywoodcpr.org/index.htm>

Waste Management – Temporary Disposal

- <http://www.wm.com/WM/services/Business.asp>

Green Planet Productions

- <http://greenplanetproductions.org/>

## **Transportation**

EcoLimo (L.A., San Francisco, Washington D.C.)

- <http://www.eco-limo.com/index.html>

OZOCar (New York)

- <http://www.ozocar.com/>

PlanetTran (Boston, San Francisco, San Jose, Oakland)

- <http://www.planettran.com/>

Hertz

- <http://offers.hertz.com/greencollection/index.cfm?uniqueid=8930>

Avis

- [http://www.avis.com/AvisWeb/rentalsupport/ShowCarGroupDetails?CAR\\_GROUP\\_CODE=XG&ACTION=BROWSE\\_FLEET&COUNTRY\\_CODE=US&ORIPub=FleetListByCountryFleet&ORI\\_COUNTRY\\_CODE=US&ORI\\_ACTION=BROWSE\\_FLEET&ORI\\_SESSION\\_LANG=en&](http://www.avis.com/AvisWeb/rentalsupport/ShowCarGroupDetails?CAR_GROUP_CODE=XG&ACTION=BROWSE_FLEET&COUNTRY_CODE=US&ORIPub=FleetListByCountryFleet&ORI_COUNTRY_CODE=US&ORI_ACTION=BROWSE_FLEET&ORI_SESSION_LANG=en&)

Enterprise

- [http://www.enterprise.com/car\\_rental/home.do](http://www.enterprise.com/car_rental/home.do)

## **Office Operations**

Energy Star

- <http://www.energystar.gov/>

Office Depot Green

- [http://www.officedepot.com/storeFront.do?N=302113+100000&cm\\_mmc=360i-\\_google-\\_Promo-Green\\_terms-\\_green\\_office\\_supplies](http://www.officedepot.com/storeFront.do?N=302113+100000&cm_mmc=360i-_google-_Promo-Green_terms-_green_office_supplies)

CIWMB – Buy Recycled

- <http://www.ciwmb.ca.gov/BuyRecycled/>

The Green Office

- <http://www.thegreenoffice.com/>

Green Earth Office Supply

- <http://greenearthofficesupply.stores.yahoo.net/>

Earth Friendly Moving

- <http://www.film.ca.gov/GreenFilmmaking/OfficePractices.html>

National Green Pages

- <http://www.coopamerica.org/pubs/greenpages/>

## **Food and Catering**

TBC

Green Truck

- [www.greentruckonthego.com](http://www.greentruckonthego.com)

## **Filming and Post-Production**

TBC

# Appendix D

## Site Audit and Follow-Up

### *Site Information*

- How many people are working on the site?
- What are the parking arrangements for the cast and crew?
- What types of facilities are provided for the cast and crew?

### *Resources*

- How is electricity generated? If sourced from a utility, which one?
- How is water provided?
- What types of materials are used on the sets?

### *Transport*

- How many vehicles on average are being used each day?
- What are the types of the vehicles being used, and how many of each?
- Are other forms of transport being utilized (train, subway, helicopter, etc.)?

### *Waste*

- Are there bins for collecting waste? How many? Where located?
- Are there bins for collecting recyclable materials? How many? Where located?
- Are there facilities for collecting organic waste?
- What are the main sources of waste?

### *Catering*

- How many people are being catered for?
- Do the ingredients used by the catering company come from local sources?
- Are the plates, cups and cutlery reusable?
- What disposable items were used?

### *Final*

- What happened to the set materials?
- Metrics –
  - Amount of food waste generated (if possible)?

- Amount of waste to landfill?
- Amount of waste recycled?
- Amount of electricity or fuel consumed by generators?
- Amount of water used?
- Amount of fuel used for vehicles?