



DIGITAL PHOTO GUIDELINES

When submitting digital photos for *Home Energy* here are some points to consider. If you wish to read more in depth, please read points in corresponding numbers below:

1. Set your camera on the largest image size and the highest quality resolution your camera will allow.
2. Use the setting denoted as "High," "Super Fine," "Ultra-High" even though it will consume more memory.
3. Your final image should be roughly 1.2 MB in size which translates into a 4" x 5" printed image.
4. Do not crop, re-size or try to edit your image in any way. Let us worry about that.
5. Try to store your image in TIF or JPEG formats for easy transmission. (Do not use heavy JPEG compression.)
6. Send "thumbnail" jpgs for consideration to khenke@homeenergy.org. We will select which one(s) we can use and request a high resolution version.

Why Image Size Is So Important?

Perhaps the biggest stumbling block to quality reproduction images is inappropriate file resolution. Low resolution will not deliver details and crispness when printed. They may look fine on your computer screen and print out beautifully on your inkjet, however "going to press" requires higher resolution images for best results.

Today, most mid-range digital cameras capture good quality images for magazine reproduction. While a 3-megapixel digital camera can provide a quality 3.5" x 5" photo (when the camera is set to its highest recording quality) a 10+ megapixel camera can shoot an 8.5" x 11" image suitable for the magazine cover. Low-end digital cameras are not be capable of producing the necessary quality. Use a digital camera with a high quality lens to reduce the noise factor and capture the most detail in shadows.

More information to consider (details of the numbers above):

1. **Shoot the picture at the highest resolution possible.** When taking a photo, set your digital camera on the largest image size and the highest quality resolution the camera will allow. Resolution should be 300 dpi (dots per inch) which is equivalent to 300 ppi (pixels per inch). To achieve this, the digital camera must be set on high resolution at the time the photo is taken AND at the time the image is transferred to the computer. It is possible to take a large (for example, 9" x 12") image at 150 dpi and reduce it down to 4.5" x 6" at 300 dpi. The reverse is not true. Digital photos cannot be blown up without loss of data; image quality will be compromised significantly.
2. **Choose the highest resolution setting on the camera.** The highest resolution settings usually are called "High," "Super Fine" or "Ultra-High." Higher pixel settings eat up more camera memory and may require you to use a higher capacity memory card. You will be able to take fewer photos with your camera on the highest setting, but those you take most likely will be usable in the magazine. A 4 GB memory card can be purchased nearly anywhere for under \$30 and can greatly expand the number and quality of images your camera can hold.
3. **Understand the significance of megapixels.** Consider the number of megapixels your camera requires to create a 4-inch x 5-inch image (about one-third page size) that maintains at least 300 ppi (pixels per inch) quality. A simple formula to calculate the megapixels you need to obtain high quality at a specific size "print" is: (width inches x 300 ppi) x (length inches x 300 ppi) = Number of megapixels

Example: To shoot a high quality 4 x 5 image (4" x 300 ppi) x (5" x 300 ppi) = 1,200 x 1,500 = 1,800,000, or about 2 megapixels.

continued on page 2

4. The final file size of each interior photo should be minimum 1.2 MB. This translates in print to roughly a 4" x 5" size. This is vital in getting a sharp result in publication—especially if the photo is enlarged. Even if you are using a "4 mega-pixel" camera, if you set it to take pictures at the smallest file size, you'll end up with a file too small to use in print. Beware of digital zoom features in the camera. They offer no additional resolution or capability; they merely crop the image, giving the effect of having zoomed into the scene. Real optical zoom, on the other hand, is a desirable feature.

5. Do not manipulate the photo. Do not crop, re-size or try to edit the image in any way. This includes adjusting the brightness and contrast. We know what settings work best and have access to digital image manipulation software. Don't place photos in Microsoft PowerPoint or Word.

6. Image File Formats. Digital cameras can be set to store images in a variety of formats such as JPEG or TIF. Those images, when downloaded to a computer, can then be manipulated (by us) using photo editing software and stored in still other formats. Either one of these formats will work; other formats should be avoided.

Important: Do not use heavy JPEG compression. Compression artifacts can completely ruin a photo. Use the top quality setting on the camera, which is usually "minimum" or "zero" compression.

A FEW GENERAL TIPS TO KEEP IN MIND

- Shoot both verticals AND horizontals of the same subject.
- Remember that the best time to shoot pictures is early or late in the day or when there is enough cloud cover to diffuse the light. Avoid shooting in the middle of a sunny day. The harsh shadows can ruin what would otherwise be a good picture.
- Shoot from a variety of angles and distances. Look for high places to shoot down from. Walk out into a field, away from your subject if necessary. If you are shooting an interesting detail, walk right up to it and fill the frame with it.
- If you find an especially compelling subject that portrays an important aspect of your project don't hesitate to take several shots from different angles.
- Take your light reading from the subject. Sometimes this means taking the reading from within a couple of feet of the subject, then backing up to take the picture.
- We like to have people in your pictures, working on the project. Candid shots are best, as if there were no camera present.

LEARN MORE ABOUT HOW TO SHOOT A GOOD PHOTO

<http://photo.net/learn/architectural/exterior>

http://www2.wabash.edu/blog/technotes/2007/03/tips_for_taking_great_pictures.html

<http://fetch.lifehacker.com/tag/photography-tip/>

<http://www.memorysuppliers.com/tentifortabe.html>

SHOOTING A COVER IMAGE

When shooting for a magazine cover, additional factors come into play. The orientation needs to be vertical. Along with lighting, angle and composition, we also need to place text on top of the image.

Home Energy enjoys featuring people in the cover shots, although it's not necessary, you could consider including construction workers, or project managers in your shot.*

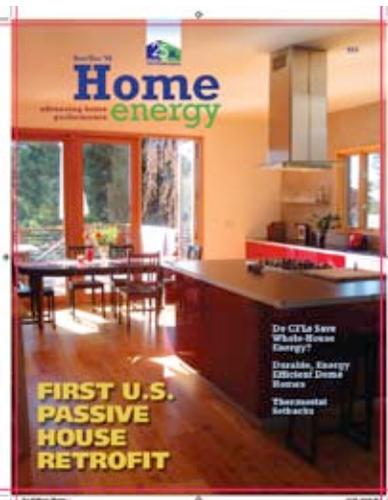
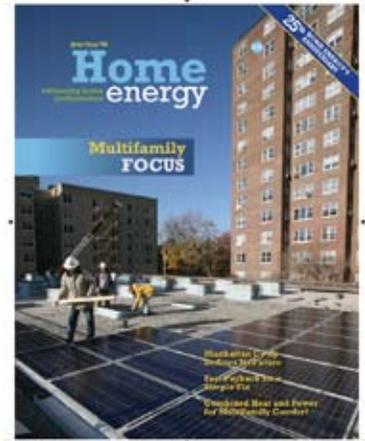
What Magazines Require

Although we don't sell on a rack, it is important to know that about 80% of all magazine rack sales come from a good cover design. The magazine cover can be critical to the magazine's success and survival.

For a cover story we would like to choose from several photographic options. All of the options needed to have extra space at the top of the frame for a nameplate. Frequently, text is also placed on the right-hand side of the image. No matter how good an image is, it won't be used for the cover unless there is a place for this text. It is critical to make sure to keep these factors in mind.

Previsualize the Layout

It is helpful to previsualize the frame proportions when you look at a scene. Rather than looking at the subject, look at the edges of the frame. Imagine superimposed text elements over the scene. The remaining area is the usable portion of the frame. This is the area where the main subject must be located. The remainder of the frame must still contain information. Although it's less important space, it's not considered "dead space." For example, when shooting a building, the sky is a perfect space to drop in the nameplate.



Orientation & Resolution

Often it's best to orient the subject toward the right, otherwise the subject looks too close to the spine of the magazine. The image can sometimes be flopped, but if it contains text, street signs or other elements flopping an image is not possible.

It is important to consider space around the image so that different crops are possible, as well as the bleed. The "bleed" is the area that extends outside the crop marks which is necessary when printing and trimming the magazine (see the image on the left).

The cover image needs to be high resolution, not only for the size, but we may want to crop it. If in a vertical orientation the image needs to be about 40 MB in size, and if we need to rotate a horizontal image and crop to make it vertical, then the photo needs to be approximately 46 MB.

Vary Your Approach

Besides following A FEW GENERAL TIPS TO KEEP IN MIND on the previous page, your approach to shooting the cover should allow for experimentation and playfulness, shooting as many variations as your time and memory card will allow. Professional photographers are accustomed to shooting up to 50 images of any given subject. It is not always skill that makes a good image,

it is that one in 50 that hits the mark for an image worth printing. Approach your subject(s) from a variety of angle, direction, distance, and crop, as well as time of day (lighting).

Send Thumbnails

Many computer operating systems offer an ability to send thumbnail photos by e-mail, if you are uncertain which image will work the best, you can send many in small format, and we will select a few that you can send in full size. Other options are to send a CD, send via "YouSendIt.com" or you can upload onto our FTP server. See page 2 for more info.

Thank you for helping us put a great face on *Home Energy* magazine!

* We have journalistic protections so is not necessary to have model releases or property releases for images in our magazine. If someone requires a release, we can provide one.