

# CREATION

## Diocesan Task Force for The Stewardship of Creation

*You are invited*

to join us in embracing God's creation



**\$ave Money  
ave the Earth**

## Energy Audit for Churches

The Episcopal Diocese of Alabama  
521 North 20th Street  
Birmingham, AL 35203

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*© Lord, how manifold are your works! Hallelujah!*

# WELCOME

## Diocesan Task Force for The Stewardship of Creation

### MISSION STATEMENT

The Stewardship of Creation  
Task Force exists  
to educate the people of the diocese,  
to advocate for wise and just  
environmental policy, and  
to provide opportunities for service  
in the stewardship of earth.

### The Bishops' Call: Care of Creation

**"We write you to address our joyful, weighty responsibility to take seriously our stewardship of Gods' creation. We speak a specific call to engage in environmental education in our dioceses and parishes. . . . We call upon our people to devote energy to studying and understanding the admittedly complex issues connected to the stewardship of the earth."**

From *Care of Creation*, the Pastoral Letter of the Episcopal Bishops of Province IV

### Our Response: An Energy Audit for Churches

An energy audit is a systematic way of assessing what energy resources are currently being used by your church and evaluating ways to reduce energy consumption. This evaluation considers any initial costs for energy efficient upgrades as well as the amount of time it will take to recover this investment through reduced energy costs.

### What is Involved in Doing an Energy Audit?

- 1 The first step is a commitment of your church leadership to this process. For most churches an energy audit will be done in stages.
- 2 Form a committee of 3-5 people who are committed to energy conservation and saving the church money.
- 3 Follow the guidelines in this pamphlet to help your church get started with looking at current energy use and some simple and inexpensive ways to reduce energy consumption and costs.
- 4 For further resources and updates, you are welcome to contact the Diocesan Task Force at [www.dioala.org](http://www.dioala.org). Click on Ministries then Stewardship of Creation. We welcome your additions and suggestions.

*In wisdom you have made them all. Bless the Lord!*

# ASSESSING

## Step One Where Are We?

### How much are we spending?

- 1 Gather the energy bills (gas, electricity, oil, coal, etc.) for the church for the past year.
- 2 Add up the total energy costs for each month so you can see seasonal patterns.
- 3 Add up the total energy costs for the year.

### Take a tour.

Clip board in hand, walk around the entire property, inside and out, making an initial assessment.

- 1 Note all lighting, what type of light it is (compact fluorescent, T-8 or T-12 fluorescent, LED, incandescent), and estimate how long the light is on each day.
- 2 Note what activities take place in each lighted space.
- 3 Inspect all doors and windows for air leakage.
- 4 Make notes about each room/space as to when and for how long it is occupied.
- 5 Organize your notes so it is easy to assess the energy needs for each space.

### Gather Resources

*Putting Energy Into Stewardship: Energy Star® for Congregations Guide*

Federal Environmental Protection Agency

90 page PDF file: [www.epa.gov/congregations](http://www.epa.gov/congregations)

Scroll to "Putting Energy into Stewardship."

FREE hard-copy: 1.888.STAR-YES (1.888.782.7937)

*Episcopal Ecological Network*

[www.EENOnline.org](http://www.EENOnline.org)

*National Council of Churches Energy Stewardship Guide*

[www.webofcreation.org/estew/index.html](http://www.webofcreation.org/estew/index.html)

*Environmental Resources*

[www.theregenerationproject.org](http://www.theregenerationproject.org)

Scroll to "Your State" and, for examples, click on Alabama and Georgia.

*Southern Alliance for Clean Energy*

[www.cleanenergy.org](http://www.cleanenergy.org)

Click on Green Power

*Alabama Power Energy Check Up*

[www.southernco.com/alpower](http://www.southernco.com/alpower)

*For Residents of North Alabama*

[www.tva.com/greenpowerswitch/distributors.htm](http://www.tva.com/greenpowerswitch/distributors.htm)

*The earth is full of your creatures. Bless the Lord, O my soul!*

# CHANGING

## Step Two No-Cost Changes

### Lighting

- Organize a church-wide “turn off the lights” campaign for spaces that are unoccupied or are adequately lighted by sunlight.
- Assess if spaces are over-illuminated for the activity that occurs in the space, and if so, disconnect some of the lights.
- Assign specific people to the task of turning off lights in critical areas.

*The most energy efficient light is one that is turned off!*

### Review maintenance contracts.

- Look at the contracts for all the heating and cooling systems. If there are not contracts, find out the schedule for maintenance.

### Heating and Cooling

- Organize a church-wide “keep doors and windows closed” campaign for spaces that are heated or cooled.
- When practical, turn off the air conditioner and open the windows for ventilation.
- Manually set back ordinary thermostats when spaces will not be occupied. Post the occupied and unoccupied settings for both heating and cooling at each thermostat.
- If the church has set-back thermostats, be sure they are being set properly for efficient energy consumption.
- Make use of existing blinds, shades and drapes to manage heat gain and loss at windows.

### Water and Water Heating

- Check the thermostat setting on all water heaters and set to the appropriate temperature.
- Check for running water and leaky faucets.

#### RECOMMENDED SETTINGS WATER HEATER TEMP

Hand washing	105°
Showers	110°
Laundry	160°
Dishwashing by hand	170°
Dishwasher	180-195°

#### *An Experiment*

*Remove a couple of lamps, or one or two of the tubes and ballasts of fluorescent fixtures. See if the new level of illumination is adequate. If so, stay with it. Turn off lights near windows during daytime hours to see if the effect is satisfactory.*

*I will sing to the Lord as long as I live. Hallelujah!*

# INVESTING

## Step Three Investing in Changes

### Things to Consider First

#### Lighting

- LED exit signs  
Each incandescent exit sign costs about \$30/yr. to operate and maintain while an LED exit sign costs about \$5/yr.
- Compact Fluorescent replacement bulbs  
For each incandescent light bulb you replace with a compact fluorescent bulb you will save approximately \$15/yr. in energy use and bulb replacement cost. This will pay back the initial higher cost of the bulbs in less than 2 years.
- T-8 fluorescent fixture replacement  
When replacement is necessary or new fixtures are needed these are more efficient than the older T-12 fixtures.  
(Check p. 43 of the *Energy Star for Congregations Guide* contact listed in *Resources* on *Step One* page.)
- Install motion detection switches.

#### Heating and Cooling

- Install set-back thermostats.
- Install caulking and weather-stripping to doors and windows.
- Seal leaks in ductwork and insulate the ducts.
- Tune-up your heating and cooling systems.
- Replace filters regularly.
- Install window film and shades, or other means for curbing heat gain/loss through windows.

#### Water Heating

- Insulate your hot water heaters.
- Replace with Energy Star water heater and consider relocating closer to source of use when replacement is necessary.

#### For the Conservation of Natural Resources

Almighty God, in giving us dominion over things on earth, you made us fellow workers in your creation: Give us wisdom and reverence so to use the resources of nature, that no one may suffer from our abuse of them, and that generations yet to come may continue to praise you for your bounty; through Jesus Christ our Lord. Amen. BCP p. 827 #4

*I will praise my God while I have my being. Hallelujah!*

from Psalm 104

# LEARNING

## Step Four Education for Adults and Children

### Opportunities for Adults

Offer classes on stewardship of creation during the "Sunday School Hour."  
The following are resources for you to explore.

*The Province IV Bishops' Pastoral Letter: Care of Creation*  
Five-Session Curriculum  
available on CD in all Parishes in the Diocese of Alabama.

*The Earth Bible Series*, available through Pilgrim Press  
[www.webofcreation.org/earthbible/earthbible.html](http://www.webofcreation.org/earthbible/earthbible.html)

Plan *Earth Day events*, or other *Care of Creation events*.

Have *information* available for individuals and families  
to audit and conserve energy consumption at home.  
[www.earthministry.org](http://www.earthministry.org)

Scroll to "Caring for All Creation: On the Road, At the Table, In the Home."

### Opportunities for Children and Youth

Offer Christian Education classes for all age groups to help children and youth learn how to be good stewards of God's creation. Encourage the youth and EYC to adopt projects that put into action what they are learning about care of creation. The following are resources for you to explore.

*Province IV Coordinator for Environmental Concerns*  
Joyce Wilding at [joycewilding@comcast.net](mailto:joycewilding@comcast.net)

*Camp McDowell Environmental Center*  
[www.campmcdowell.com](http://www.campmcdowell.com)

Click on Environmental Center  
Maggie Wade Johnston at [maggie@campmcdowell.com](mailto:maggie@campmcdowell.com)

A site for *Curriculum Reviews* for all ages  
[www.eco-justice.org](http://www.eco-justice.org)

Click on Eco-Curriculum Review "Explore the Reviews."

*A fund-raiser selling compact fluorescent light bulbs (CFL)*  
[www.brethren.org/genbd/BP/CFL](http://www.brethren.org/genbd/BP/CFL)

"Youth CFL Project" is a source for bulk light bulbs  
and promotional materials.

**"We support your ministry of stewardship that may flow from your educational efforts. . . . May we embrace our stewardship of God's creation with joy and energy."**

The Province IV Bishops' Pastoral Letter 2005

*May the glory of the Lord endure forever. Bless the Lord!*