



Green Interfaith Network, Inc.
PO Box 4293
Johnson City, TN 37602
<http://greeninterfaith.org>
greenintfaith@gmail.com

United by a belief
*that Earth is sacred, we
work to promote practices
which protect and enhance
our relationship to all
Earth's life-forms and
natural systems by
engaging faith communities
and the people of our
region to support
sustainability, accountability
and equity (justice).*
—GINI Mission Statement—

2015-16 Board of Directors
Shelley Stahlman, President
Dottie Seek, Treasurer
Carol Landis, Secretary

Members at-large:
Don Davis
Autumn Edwards
Rev. Hal Hutchison
Rev. Ed Wolff

Liaison to TIPL:
Ted Jackson

Dear Friends:

As you consider your faith group's energy use, what do you plan to do next? Is it time to take action?

This guide will lead you through the steps and help you decide what you should do first. The changes you make will save both energy and money at the same time, while also meeting our faith-based moral and ethical responsibility toward each other and the Earth. This guide is not a replacement for a full energy assessment by a qualified professional, which would also use special tools that can detect airflow, for example. But if you're not ready to engage with a professional service, a small group of people can use this guide to take many important steps.

There are five easy steps to begin:

- 1) Gather a team of people from within your faith community. You'll need the support of your leadership/clergy, so be sure to ask for their endorsement. Then you'll want to involve people who know your building well, along with office and building maintenance staff. Finally, you need a project champion, someone to put things in motion and assign tasks. Maybe that's you!
- 2) Record your faith group's energy use. You can get these data from your utility bills. If you're interested in your carbon footprint, the national [Interfaith Power & Light \(IPL\)](http://www.coolcongregations.com) office provides a carbon calculator at their website: <http://www.coolcongregations.com>. There's a checklist on the website that tells you what documents you'll need to gather. Once you've input your data, it will calculate your energy use and the carbon footprint of that energy use. You can download and/or print the results, for comparison later.
- 3) Identify energy-saving actions that make sense for your location. This is best done with your team. Allow about 60-90 minutes to list your options and prioritize your next steps.
- 4) Decide how to make changes to reduce your energy use. Many changes are free or low-cost; others may require purchases. Suggested actions with a star next to them on the attached checklist provide some of the biggest energy savings possible. [Note that IPL offers some options for reduced prices on light bulbs and other electrical products through "[ShopIPL](#)."]]
- 5) Add this effort to your annual meeting agenda. Each year you can measure and report your energy use (and reductions) to celebrate the progress you've made.

Remember, you're not alone in doing this. We give thanks to all the people who have been part of this effort. Feel free to contact [GINI](#) for help; and contact the Tennessee IPL ([TIPL](#)) or the national IPL office for more information.



**GREEN
INTERFAITH
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Memorandum of Understanding

between

Green Interfaith Network Inc. (GINI), an affiliate of Tennessee Interfaith Power & Light (TIPL), and

Understanding that:

- GINI/TIPL is providing assistance with a walk-through energy assessment of your house of worship, with at least two members of the faith group,
- GINI/TIPL will assist your congregation's leadership team with documentation of energy consumption and costs and consideration of subsequent energy conservation measures;
- GINI/TIPL will communicate regularly with your congregation about strategies and progress toward energy conservation measures being implemented in your house of worship; and
- GINI/TIPL will provide access to information resources about energy conservation and good stewardship of Earth's resources;

...it is also agreed that:

- the faith group will collaborate in the development of a written energy assessment report, to be completed within two weeks of the walk-through site visit;
- the written energy assessment report will include each of the elements as outlined in the attached "Scope of Energy Assessments" document; and
- the incentive of \$500.00 to implement some of the recommended energy conservation and efficiency measures will enable our faith group to save money which can be re-directed toward important ministries.

In recognition of the above, it is acknowledged that the energy assessment process offered by GINI/TIPL would also benefit another faith group in the TriCities region. In the spirit of "paying it forward," I/we _____ (congregation's leader/s or treasurer) agree to return \$500.00 to GINI within one year of the date of our written energy assessment report (from savings realized from our conservation measures). In this way, GINI can use the same incentive to assess and improve energy efficiency for other congregations in northeastern Tennessee and southwestern Virginia.

Signature: _____ Date: _____

Printed name: _____ Phone: _____

Address: _____

City, State: _____ ZIP: _____



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GINI's "Value Added" Energy Assessments for Congregations

*"Sharing knowledge can seem like a burden to some, but
on the contrary, it is a reflection of teamwork and
leadership." [Anonymous]*

The Green Interfaith Network, Inc. (GINI) has a stated vision of becoming "a model for green faith communities in the Southern Appalachians and to become a spiritual voice for environmental sustainability in the Northeast Tennessee and Southwest Virginia region."

In keeping with that vision, GINI offers to share knowledge gained from its members and affiliates as we strive to become that model and to support the spiritual voices of faith communities in the TriCities region.

GINI is an affiliate of the Tennessee Interfaith Power & Light, whose national organization (Interfaith Power & Light, or IPL) held an event on September 13, 2012, called "Greening America's Congregations"...in partnership with the U.S. Environmental Protection Agency's (EPA's) ENERGY STAR program and the White House's Office for Faith-Based and Neighborhood Partnerships.

GINI utilizes and builds upon strategies that have been tested in other states and regions through IPL. The "value added" component in our offer is GINI's commitment to helping area congregations achieve their goals of energy conservation and cost reduction. GINI members have the experience and the networks in place to help congregations in northeastern Tennessee and southwestern Virginia establish and then reach their own goals as they take control of their resource use decisions.

As a direct result of energy conservation measures, congregations all over the United States have been able to redirect money from their utility bills to begin other activities for which funds had not been available.

"According to EPA, if America's houses of worship cut energy use by 20 percent, collectively they would save nearly \$630 million, cut electricity use by more than 3.6 billion kilowatt hours, and prevent more than 2.6 million tons of greenhouse gas emissions, equivalent to the emissions from about 480,000 cars."¹

GINI's "Value Added" Energy Assessments for Congregations (continued)

Unlike a traditional "walk-through" energy audit process, GINI members will help faith communities to gather the data they need to make informed decisions, while also empowering member households to implement similar strategies. This step multiplies the effectiveness of our effort. A similar endeavor, undertaken from 2008 to 2010 in Ohio, helped 300 congregations across the state (and 5,000 households) reduce their energy consumption as part of an Earth stewardship campaign.

GINI offers a personalized assessment of your facility, a problem-solving approach with shared responsibilities for information gathering and data analysis, and access to information and resources that have been utilized successfully by other congregations.

At this time, GINI has no accredited HVAC professionals among its members. As a result, we cannot offer a professional assessment of heating and cooling systems.

Instead, we offer to support your decision-making with current and reliable information, tested strategies, and genuine interest in your success. In exchange for this level of engagement, we respectfully request the opportunity to provide insights gained from your experience to other faith groups who seek our help.

Steps to be taken include the following (as needed):

- 1) meet with relevant members (e.g., energy team) of your faith group;
- 2) tour your building or facility;
- 3) examine past utility records;
- 4) enter data into the Energy Star Portfolio Manager (to track progress);
- 5) help to plan other meetings within your faith community; and
- 6) provide access to information and resources about energy savings.

Please feel free to learn more about GINI online, and request assistance with your energy conservation efforts. We look forward to the opportunity to assist with this stewardship and eco-justice effort.



**GREEN
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Scope of Services: Energy Assessments

For Green Interfaith Network, Inc. (GINI), a Tennessee Interfaith Power & Light (TIPL) affiliate

The specific elements included in our energy assessments are outlined below. Volunteers will conduct our energy assessments using a simple checklist developed for the “Cool Congregations” program offered by Interfaith Power & Light (IPL). Our program has both energy assessment and education components, which are described below.

Over the past two years, four congregations in Washington County received and returned a \$500 incentive offered by GINI to take steps to reduce energy use in their houses of worship. They were also asked to encourage member households to participate as well, as evidence of their education program. GINI's energy assessments were made possible with a grant from the Harris Fund of the East Tennessee Foundation.

In order to help GINI promote more energy efficiency in the TriCities region, recipients of the \$500 incentive will be expected to “pay it forward” by returning the \$500 incentive to GINI (from their savings) within one year from acceptance of our check. This will enable GINI to issue yet another incentive to another congregation in our region.

Information about our project and its successes are listed on the GINI webpage under a menu tab "New! Greening Grants" which is found at greeninterfaith.org. A set of documents that can help congregations and households become more energy efficient are available for download from our webpage, as well. A Memorandum of Understanding outlines the details of our partnership agreement for this project.

Note that faith groups are also encouraged to pursue energy assessments conducted by area electrical distributors and/or energy experts. We also encourage members of every congregation to participate in the educational aspects of our program, whether or not your congregation chooses to receive our \$500 incentive for GINI's energy assessment of their house of worship.

Application Process

Faith communities who are interested in applying for our \$500 incentive will be asked to:

- a) assemble a team of members who will commit to assisting with the analysis and compile and implementing the recommendations for your faith group over the next two years;
- b) submit a letter of application describing your congregation's needs and current energy use; and
- c) suggest a start date for your energy efficiency effort.

Applications are considered quarterly by GINI's Energy Stewards Team, which makes recommendations to the GINI Board of Directors for funding decisions.

Scope of Services: Energy Assessments (continued)

Energy Assessment Process for Faith Communities

1) Initial meeting on-site:

Members of GINI's Energy Stewards Team will meet with your congregation's team at your house of worship to provide basic information about the project and to discuss past energy use at this facility. Over the period of the next two years, your congregation will maintain a spreadsheet to illustrate changes in energy use and to document dates (and costs) of strategies that were implemented during the period of our partnership.

2) Walk-through of facility:

Energy Stewards from GINI will arrange a day and time to meet at least two members of your congregation to conduct a site visit of your building/facility. Someone who is familiar with the physical facilities/management must be a part of this walk-through team. A checklist will be used to describe and/or define current conditions and concerns.

3) Written report & Letter of Commitment:

Your congregation's team will create a summary report of our assessment within two weeks of our walk-through. A template will be provided to you, along with digital copies of the notes taken during our walk-through. The report will include:

- a. A summary of the main findings of the walk-through, noting key facility attributes and energy stewardship opportunities;
- b. A description of uses of the building and a record of energy use and costs from at least the last 12 months, and preferably, the last 24 months of utility bills for this location;
- c. An overview of facility systems and conditions (hot water, heating, cooling, lighting, plumbing, appliances, building envelope systems, etc.), including photos of areas of concern;
- d. A list of "most likely" energy-saving improvements that can be made in the facility, categorized as "low-to-no-cost," "short-term investments," and "long-term capital investments;" and
- e. A map or diagram of the facility, where available.
- f. A letter of commitment, stating your congregation's intention to maintain a team who will manage and implement energy efficiency measures at your facility over the next year.

4) Check & Memo of Understanding:

Following GINI's receipt of your letter of commitment and your walk-through report, the GINI Board of Directors will issue a check to your congregation for \$500, allowing your group to take initial steps toward energy efficiency improvements. Your team/leadership will decide how the money should be used. A Memorandum of Understanding will be exchanged between your congregation and GINI, describing the roles and expectations of each organization over the next two years. Your congregation will "pay it forward" from your energy savings within a period of one year from the date of issue of our check. This

Scope of Services: Energy Assessments (continued)

rollover aspect of our project enables GINI to maximize the regional effect of the Harris Fund grant.

5) Energy Use Spreadsheet:

A representative from GINI can help your faith group's team set up and/or examine an energy use tracking system (e.g. EPA's Energy Star Portfolio Manager) to assist with analysis of strategies and effectiveness of your energy efficiency measures. Someone on your team will input energy use (from utility bills) each month for at least one year, sharing the information with GINI and your congregation on a quarterly basis.

Follow-up support

Someone from GINI's Energy Stewards Team will continue to communicate with your faith group's team to: assist with interpreting results, investigate other available options, improve our networking on energy issues, and offer activity and implementation resources. Follow-up contacts will be timed to encourage successful implementation of energy efficiency measures.

The most important goal for the energy assessment process is that faith communities will identify and implement effective energy efficiency measures. GINI will help to build a network of energy assessment professionals and other conservation-related businesses that may be helpful to faith groups in our area. GINI/TIPL will also link to a list of available rebates and incentives for energy efficiency and renewable energy improvements, as well as to examples of other faith groups around the country who might inspire additional positive changes within houses of worship and their member households.

Revised November 2015



Template for Energy & Resource Assessment Report to GINI

Note: The following template provides a guide to making a formal request to the Green Interfaith Network Inc. (GINI) for financial assistance to implement energy efficiency measures at your place of worship. The report should contain these elements:

1. Name and address of church/facility
2. Date of the GINI energy assessment and names of those present
3. Commendations for strategies and practices already in place
4. General information about the buildings/facilities (age, type of construction, square footage, type of heat, water service, landscaping service, etc.)
5. Description of each building by zone or floor, with primary energy concerns in each zone or major area (e.g., administrative offices, sanctuary, narthex, classrooms, kitchen, dining/fellowship hall, basement, library, utility space, garage, storage building/s, etc.)
6. Summarize the observations from the walk-through about the following:
 - a. HVAC units (age, make, concerns)
 - b. Water Heaters (age, temp. settings, hot water pipe insulation, insulation jackets)
 - c. Windows & Doors (type, condition, and number in each room/area, seal conditions)
 - d. Roof / Ceilings / Insulation
 - e. Sinks/Hot water needs (e.g., dishwashers, coffee makers, radiators)
 - f. Office Equipment (e.g., computers, monitors, printers, copiers)
 - g. Lighting (indoor and outdoor types and totals)
 - h. Evidence of water or air leaks, dehumidifiers
 - i. Requirements for organ, piano, musical instruments
7. Summarize planned improvements in routine maintenance (seasonal adjustment of timers, filter changes, draining of water tanks, battery replacement schedule, checking accuracy of sensors and timer settings, and other resource management improvement opportunities, as follows:
 - A. Recyclables (e.g., paper, cardboard, plastic, glass, batteries)
 - B. Waste management (e.g., yard waste, food waste, unrecoverable trash)
 - C. Water use (e.g., drips, leaks, outdoor watering)
 - D. Cleansers, soaps, degreasers (purchase, use, and storage)
 - E. Lubricants, paints, solvents (purchase, use, and storage)
 - F. Vehicles (e.g., mowers, plows, vans, buses)
 - G. Food storage/prep appliances (e.g., consolidate refrigeration/freezer contents)
 - H. Musical instrument/s, robes, and other storage concerns (e.g., seasonal decorations)
8. How you plan to implement energy efficiency improvements in the next year (the likely expenditure/s of the \$500 incentive).

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Energy Saving Tips for Families

- Perform a do-it-yourself home energy audit. Online and paper versions are available.
- House Envelope and Interior Structure
 - Caulk and weather strip around windows and doors to stop air leaks.
 - Seal gaps in floors and walls around pipes and electrical wiring.
 - Add insulation to your attic, crawl space and any accessible exterior walls.
 - Install foam gaskets behind electric-outlet and switch-plate covers.
- Heating Ventilation and Air Conditioning system(s)
 - Check air filters monthly; replace or clean filters as recommended by manufacturer (1-3 inch filters – 60-90 days; 4-5 inch filters 6-12 months).
 - Set Thermostats as low as comfortable (65-68°F) in winter and as high in summer as comfortable (78-81°F).
 - Replace manual Thermostats with 7-day programmable Thermostats.
 - Tune-up your heating and cooling system annually to keep it running as efficiently as possible.
 - Have your ductwork inspected and repair any leaks.
 - Keep your outside air unit clean and clear of debris or weeds.
- Lighting, Appliances and Electrical Equipment
 - Look for the ENERGY STAR® label when replacing large or small appliances.
 - Replace incandescent bulbs with compact fluorescents or LEDs – they use 75% less energy and last 10 (or more) times longer than incandescent bulbs.
 - Use low-watt bulbs where lighting is not critical.
 - Place floor lamps and hanging lamps in corners. The reflection off the walls will give you more light.
 - Use power strips for home electronics and turn off power strips when equipment is not in use.
 - Replace worn-out seals on your refrigerator and freezer.
 - Clean refrigerator coils regularly to keep compressor running efficiently.

Energy Saving Tips for Families (continued)

- Set the refrigerator temperature at 36° to 39°F and freezer at 0° to 5°F. Keep heat sources such as lamps and appliances away from your thermostat.
- Wrap your water heater with insulation or install an insulating blanket.
- Use Dehumidifiers or Humidifiers to make the air feel more comfortable (40-60% humidity is ideal).
- Retain appliance manuals for energy tips.
- Habits to Save Energy and Money
 - Reduce hot water use by taking shorter showers and using cold water for the rinse cycle in your washer. Use detergents made for washing in cold water.
 - Turn off lights, televisions, and other appliances when not in use.
 - Use the microwave when possible – it cooks faster and doesn't create as much heat as a stove burner.
 - Air-dry dishes instead of using the dishwasher's heat drying option.
 - Run your dishwasher and clothes washer only when full.
 - Match the size of your pot or pan to the size of the burner.
 - Make sure your dryer's outside vent is clear and clean the lint filter after every load.
 - Keep all windows and doors located near your thermostat closed tightly.
 - Dry one load of clothes immediately after another to minimize heat loss.
 - Defrost frozen food in the refrigerator before cooking.
 - Use the oven light to check on progress when cooking or baking.
 - Turn off outdoor lighting during the day. Try timer switches or photoelectric controls.
 - Keep your freezer full. The fuller the freezer, the less cold air you lose when opening the door
 - Use the self-cleaning cycle of your oven right after you finish baking.
 - Stop staring at the inside of the refrigerator while you decide what to get.
 - Open windows and use fans during the spring and fall (consider those with allergies).
 - Install a pet door.
 - Use LED night lights.
 - Use a smaller toaster oven versus a conventional oven for a single item.
 - Unplug unnecessary gadgets (can openers, mixers, etc.).
 - Consider using rechargeable batteries (and ensure the proper disposal of them)
 - Close doors to unused rooms; block the vent duct in the room with magnetic sheets.
 - Close drapes/blinds to block the sunlight in the summer or to let it in during the winter.
 - Use an exhaust fan in attic on cooler summer mornings to draw air to cool the house.

Water Saving Tips

- Install aerating, low-flow faucets and showerheads.
- Fix any leaky faucets – one drop per second can add up to 165 gallons a month.
- Eliminate losses from dripping faucets or spigots.
- Take a shorter shower; take showers instead of baths.
- Turn water off while washing hands and brushing teeth.
- Run dishwasher only for full loads.
- Match the wash cycle to the amount of clothing in the washer; use cold water wash cycle.
- Water lawns and outdoor plants in the evening or early morning.
- When watering trees, use a bucket with a nail hole to allow better absorption.
- Water gardens deeply using a drip method rather than spraying them.
- Re-use gray water (e.g., dishwater) for dirtier tasks or for outdoor watering.
- Use a timer, so that you don't forget the water is running.
- Install a rain barrel to collect water for gardens and other outdoor uses.
- Catch and use water from dehumidifier to water plants and pets, or wash their bowls, etc.
- Place a filled 1-liter bottle in the toilet tank, if it's not a low-volume model.
- Replace high volume (3-5 gallons per flush) toilets with low volume (0.9-1.3 gpf) toilets.

Gasoline Saving Tips

- Plan your route for the most efficient use of the car.
- Do not let the car idle for more than 3 minutes while waiting for someone.
- Do not "warm the car" by letting it idle, except on the coldest 5 days of the year. Start it, check that the gauges are working, (10 seconds) and then drive it gently until the temperature gauge is in the normal range.
- Accelerate gradually and allow your car to coast before braking (when it's safe to do so).
- Keep your car tuned and replace filters, as needed.
- Adjust tire pressure every other week (or when the average temperature changes by 5 degrees).
- Obey the speed limit.
- Use a good brand of gasoline for your car. (This requires experimentation.)
- Share rides or carpool when you can