



Mission Investment Fund
Evangelical Lutheran Church in America
God's work. Our hands.

8765 West Higgins Road
Chicago, Illinois 60631
www.elca.org/mif

Energy and Earthcare Checklist

This guide will help your congregation assess what you are already doing to save energy and protect the earth. It will also highlight areas where you can make changes or improvements. Changes that your congregation makes will help care for creation, save energy and money. This guide is not a replacement for a full energy audit by a qualified professional, however. A professional energy audit will utilize tools that can detect air leaks and find spots that need insulation. Until a professional energy audit can be completed, a small group of people can use this guide to take many important steps toward energy conservation.

If you don't already have a Green Team, gather a team for this evaluation. You will want to involve leaders and people who know your congregation's building well along with office and building maintenance staff.

The guide is divided into two sections. The first part looks at heating and cooling systems, as well as recycling, purchasing, and embracing creation care at your church. The second part leads you through the grounds and building and asks you to evaluate your current situation. Check all the boxes that apply to your church, and be proud of what your congregation is already doing. Identify new energy-savings/earth friendly options that make sense for your church and begin to prioritize these initiatives. Many of these are free or low-cost improvements that can be done quickly. Others will require purchases and may need to phase in over time, but there are many opportunities for rebates and discounts. Remember that many improvements will pay for themselves in energy savings; and investing in energy efficient and earth-friendly practices also provides an immediate return in building reliability, as well as improving the comfort and health of its occupants.

Contact your area MIF church building consultant for assistance with this checklist as well as information on MIF investment and loan opportunities. Information and resources are also available at www.elca.org/mif.

SYSTEMS, RECYCLING, PURCHASING & EARTHCARE

HEATING AND COOLING SYSTEMS

Heating System Type:

Make/Model/Year:

AFUE rating (annual fuel utilization efficiency) if available:

ENERGY STAR rated Yes No

Comments:

Cooling System Type:

Make/Model/Year:

SEER rating (seasonal energy efficiency rating) if available:

ENERGY STAR rated Yes No

Comments:

*Installing energy-efficient heating and AC equipment can result in significant operational savings. Equipment must be properly sized after heating load of building has been reduced (weatherizing, energy efficient lighting upgrades, etc.)

	Comments
<input type="checkbox"/> Boilers/furnace maintained on a scheduled basis	Schedule annual HVAC maintenance checks and stick to them.
<input type="checkbox"/> Filters and heating/cooling coils maintained on a scheduled basis	This can reduce energy costs up to 5%.
<input type="checkbox"/> Refrigeration condensers or coils clean, unclogged and/or functioning efficiently	
<input type="checkbox"/> Air inlets or outlets clean and unobstructed	
<input type="checkbox"/> Duct or pipe insulation present and intact	
<input type="checkbox"/> ENERGY STAR programmable thermostats	Programmable thermostat will optimize operation of system and improve comfort. Proper use can save 30% in monthly heating costs.
<input type="checkbox"/> Thermostats safe from occupant manipulation	Lock or make inaccessible so occupants can not tamper with.
<input type="checkbox"/> Thermostats appropriately located away from extreme temperature fluctuations	Should be in a central location away from areas subject to extreme temperature fluctuations.
<input type="checkbox"/> Heat moderated throughout building to suit times and areas of use	Turn down heat in areas that are not being used, and at night. Limit meetings to certain nights/times to conserve energy.
<input type="checkbox"/> Thermostat temp. raised for cooling in summer (at least 78°)	Consider solar screens, ceiling fans and natural ventilation to reduce need for air conditioning.
<input type="checkbox"/> Thermostat temp. lowered for heating in winter (68° or lower)	Weatherize (weather strip, insulate, windows) for energy efficiency and comfort. Close blinds at night.
<input type="checkbox"/> Green power purchasing	Consider purchasing green power from your local utility. Visit www.eere.energy.gov/greenpower for more information.

DOMESTIC HOT WATER

Water Heater Type:

Make/Model/Year:

EF (energy factor) if applicable:

ENERGY STAR rated Yes No

Comments:

Additional Water Heater:

Make/Model/Year:

EF (energy factor) if applicable:

ENERGY STAR rated Yes No

Comments:

Comments

<input type="checkbox"/> Decentralized/on-demand hot water heaters	Consider tankless or on-demand water heaters when it is time to replace old water heater.
<input type="checkbox"/> Hot water temperature set no higher than 120° F	This helps to prevent scalds and save energy.
<input type="checkbox"/> Insulated hot water heater (if more than 5 years old)	Wrap in an insulating blanket if not.
<input type="checkbox"/> 3' of insulated "out" pipe	This applies to older and newer water heaters.
Other areas of opportunity or concern:	

LIGHTING

Comments

<input type="checkbox"/> In general, fluorescent or LED lamps used instead of incandescents (see individual rooms for details)	Visit http://interfaithpowerandlight.org/2009/11/shopipl/ for discounts on bulbs and other energy efficient products for churches.
<input type="checkbox"/> LED exit signs	Verify exit sign requirements before purchasing new signs. For purchase see http://interfaithpowerandlight.org/2009/11/shopipl/
<input type="checkbox"/> T12 fluorescents retrofitted to T8 (Indicate specific areas of opportunity in Room notes)	
<input type="checkbox"/> Members encouraged to turn off lights in unoccupied areas (stickers on switch plates, reminders in bulletins, etc.)	
<input type="checkbox"/> Clean lamps and fixtures	Dust buildup reduces reflectivity and effectiveness.
Other areas of opportunity or concern:	

INDOOR AIR QUALITY**Comments**

<input type="checkbox"/> Church has been tested for asbestos, lead, formaldehyde, radon (note any issues of mold, mildew, bacteria, and dust mites)	
<input type="checkbox"/> Church seeks to avoid volatile organic compounds (VOC) from cleaning products, carpets, and paints	
<input type="checkbox"/> Option to open windows for air circulation	
Other areas of opportunity or concern:	

GOODS AND SERVICES**Comments**

<input type="checkbox"/> Office supplies and cleaning products purchased in bulk to reduce packaging	
<input type="checkbox"/> Foods and refreshments purchased sustainably (as locally and organic as possible)	
<input type="checkbox"/> Furniture, fixtures, textiles, and printing purchased sustainably (as locally and organic as possible)	
<input type="checkbox"/> Sustainable construction and renovation practices	Contractor uses sustainable building products & practices, recycles waste, etc.
<input type="checkbox"/> Eco-friendly cleaning products (petroleum-free, chemical sensitive)	
<input type="checkbox"/> Post-consumer content paper products	
<input type="checkbox"/> Purchase wood products (furniture, flooring, altar) made from FSC certified wood or rapidly renewable materials (wheat board, bamboo)	
Other areas of opportunity or concern:	

RECYCLING/WASTE**Comments**

<input type="checkbox"/> Recycling available for paper, plastic, glass, and metal (ideally in every room)	
<input type="checkbox"/> Safe disposal of batteries	http://earth911.com/
<input type="checkbox"/> Recycling information provided to members for home use. (including toxic disposal)	
<input type="checkbox"/> Special recycling center or event for 'specialty items' (cell phones, printer cartridges, eye glasses, gym shoes, etc.)	Visit http://earth911.com/ for a zip code data base of special materials recycling.
<input type="checkbox"/> Annual yard sale for members to recycle by finding new uses for old/used items.	
Other areas of opportunity or concern:	

CHURCH LIFE

Comments

<input type="checkbox"/> Congregation Green Team	http://www.lutheransrestoringcreation.org/ http://www.webofcreation.org
<input type="checkbox"/> Member of your state's <i>Interfaith Power and Light</i> organization	http://interfaithpowerandlight.org
<input type="checkbox"/> Member of <i>ENERGY STAR for Congregations</i>	http://www.energystar.gov/index.cfm?c=small_business.sb_congregations
<input type="checkbox"/> Environmental issues integrated into the youth curriculum	http://www.lutheransrestoringcreation.org/ http://www.webofcreation.org
<input type="checkbox"/> Environmental issues integrated into worship	see above
<input type="checkbox"/> Earth Sunday celebrations	see above
Other areas of opportunity or concern:	

SPECIFIC AREAS AND ROOMS OF THE CHURCH

OUTSIDE THE CHURCH

Comments

<input type="checkbox"/> Ground slopes away from building	This will help prevent water seepage into building.
<input type="checkbox"/> Limited or no use of pesticides, herbicides and toxic fertilizer	
<input type="checkbox"/> Native plants and grasses	
<input type="checkbox"/> Vegetable garden/community garden	
<input type="checkbox"/> Compost	
<input type="checkbox"/> Manual gardening tools & mowers	Gas powered landscape equipment (mowers, trimmers, blowers) account for over 5% of urban air pollution.
<input type="checkbox"/> Mulching mower	According to EPA, yard waste (mostly grass clippings) comprises 20% of municipal solid waste collected.
<input type="checkbox"/> Drip irrigation	
<input type="checkbox"/> Watering during droughts is avoided	
<input type="checkbox"/> Down spouts located to distribute water and promote proper absorption	
<input type="checkbox"/> Bare areas plant covered or mulched	
<input type="checkbox"/> Rain barrels	

<input type="checkbox"/> Other storm water collection or management systems (rain garden, bio swale, green roof)	
<input type="checkbox"/> Efficient lighting	
<input type="checkbox"/> Lighting on sensors or timers	
<input type="checkbox"/> Outdoor lighting levels stay within adequate boundaries (not excessive)	
<input type="checkbox"/> Good use of land (sharing it, promoting animal habitats, etc.)	Consider community garden, native plants, replacing unused paving with planting, etc.

PARKING & TRANSPORTATION

Comments

<input type="checkbox"/> Spaces in the parking area for trees and groundwater absorption	
<input type="checkbox"/> Shade trees in parking for heat island reduction	
<input type="checkbox"/> Areas of pervious paving	
<input type="checkbox"/> Ride board or ride sharing program	
<input type="checkbox"/> Information on public transportation made available	
<input type="checkbox"/> Bike racks	Build a culture for biking by installing racks and hold 'bike to worship' days.
<input type="checkbox"/> Walking to church encouraged	
<input type="checkbox"/> Preferred parking for carpools and fuel-efficient cars	
<input type="checkbox"/> 'No-idling' signs	
<input type="checkbox"/> Car-free Sundays	
Other areas of opportunity or concern:	

BUILDING ENVELOPE

Comments

<input type="checkbox"/> Windows and doors properly aligned and operational	
<input type="checkbox"/> Weather-stripping and caulking in place and intact on windows	Stopping air infiltration is a simple task that can lower your heating and cooling bills. It may also reduce your heating load.
<input type="checkbox"/> Weather-stripping and caulking in place and intact on doors	see above
<input type="checkbox"/> Weather-stripping and caulking in place and intact (conduits, piping, joints, or other areas of infiltration)	see above

<input type="checkbox"/> Insulated/double-pane windows	Consider <u>character appropriate</u> Energy Star label windows. Seal, repair and add storms if replacement not an option.
<input type="checkbox"/> Ceiling insulation (include type and R-value if known)	Ceiling insulation is very critical to energy conservation. Exceed minimum R-value (per local code) if possible.
<input type="checkbox"/> Wall insulation (include type and R-value if known)	Insulate wall cavity if accessible. Exceed minimum R-value (per local code) if possible.
<input type="checkbox"/> Basement insulation (include type and R-value if known)	
<input type="checkbox"/> Cover for through-the-wall cooling units when not in use	Insulated AC covers can control drafts and keep heat in, improving comfort and energy savings. They can be made or purchased.
<input type="checkbox"/> Shade trees, canopies, or overhangs to block southern sun in cooling season	Controlling direct sunlight through windows can reduce cooling and heating costs. It is best to control sunlight before it enters building.
<input type="checkbox"/> Roof free of visible damage	Roof damage can lead to other building problems including water and air infiltration. Consider insulation upgrade when repairing or replacing roof.
Other areas of opportunity or concern:	

KITCHEN	Comments
<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	
<input type="checkbox"/> High-efficiency or ENERGY STAR refrigerator	Visit www.shopipl.org for discounts on energy efficient appliances for churches.
<input type="checkbox"/> High-efficiency or ENERGY STAR freezer	
<input type="checkbox"/> High-efficiency or ENERGY STAR stove	
<input type="checkbox"/> High-efficiency or ENERGY STAR dishwasher	
<input type="checkbox"/> Other high-efficiency equipment	
<input type="checkbox"/> Freezer free of icy build-up	
<input type="checkbox"/> Refrigerator/freezer condensers or coils are clean, unclogged and functional	
<input type="checkbox"/> Refrigerator temperature set correctly (adequately cool, but no colder than necessary)	If food toward back top is frozen, then it is too cold.
<input type="checkbox"/> Adequate refrigerator door seal	
<input type="checkbox"/> Freezers and refrigerators kept full	Fill extra space with jugs of water for increased efficiency.
<input type="checkbox"/> Kitchen equipment used efficiently (exhaust hood fans & coffee makers off when finished using)	Cook with lids on, use microwave for small amounts of food, only pre-heat for baked goods.

<input type="checkbox"/> Stove, microwave, and coffee maker unplugged when not in use	
<input type="checkbox"/> Signs/reminders to avoid running water unnecessarily	
<input type="checkbox"/> Eco-friendly dishwashing detergent and cleaners	
<input type="checkbox"/> Dishwasher run only when full	

TOILET ROOM Name/Number:

Comments

<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	
<input type="checkbox"/> Occupancy sensor light switches	
<input type="checkbox"/> Clean and efficient exhaust fans	Consider wiring exhaust fans to operate automatically when lights are on.
<input type="checkbox"/> Leak-free faucets and toilets	
<input type="checkbox"/> Signs/reminders to avoid running water unnecessarily	
<input type="checkbox"/> Low-flow aerators on faucets	Installing low-flow aerator on one faucet could save up to two gallons of water per minute.
<input type="checkbox"/> Hand-motion sensor faucets	
<input type="checkbox"/> Dual-flush toilets	These can save 10-20 thousand gallons of water per year/per toilet. Retrofits are available for existing toilets for similar savings.
Other areas of opportunity or concern:	

TOILET ROOM Name/Number:

Comments

<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	
<input type="checkbox"/> Occupancy sensor light switches	
<input type="checkbox"/> Clean and efficient exhaust fans	Consider wiring exhaust fans to operate automatically when lights are on.
<input type="checkbox"/> Leak-free faucets and toilets	
<input type="checkbox"/> Signs/reminders to avoid running water unnecessarily	

<input type="checkbox"/> Low-flow aerators on faucets	Installing low-flow aerator on one faucet could save up to two gallons of water per minute.
<input type="checkbox"/> Hand-motion sensor faucets	
<input type="checkbox"/> Dual-flush toilets	These can save 10-20 thousand gallons of water per yr/per toilet. Retrofits are available for existing toilets for similar savings.
Other areas of opportunity or concern:	

MAINTENANCE ROOM	Comments
<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Biodegradable plastic garbage bags	
<input type="checkbox"/> Eco-safe cleansers for restrooms, kitchen, windows, and other surfaces	
<input type="checkbox"/> Eco-safe cleaners/shampoos for carpets, tile floors, hardwoods floors	
<input type="checkbox"/> Eco-safe waxing products for floors	
<input type="checkbox"/> Eco-safe detergents for washing cloth napkins, towels, and paraments	
Other areas of opportunity or concern:	

HALLWAYS	Comments
<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	
<input type="checkbox"/> Well functioning water fountains (no leaks, not running continuously)	
<input type="checkbox"/> Mats at all entrances	
<input type="checkbox"/> Entrance mats regularly cleaned and maintained	
Other areas of opportunity or concern:	

OFFICE**Comments**

<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	
<input type="checkbox"/> Task lighting	
<input type="checkbox"/> Daylight used effectively (i.e. work stations are close to windows)	Turn down/off lights when it is sunny.
<input type="checkbox"/> Electronic devices and office equipment turned off and unplugged when not in use (computers/printers/coffee makers/microwaves)	The energy appliances use when they are plugged in but not turned on (phantom load) accounts for 6% of energy used in U.S.
<input type="checkbox"/> ENERGY STAR appliances and equipment (copier, printers, computers, other)	
<input type="checkbox"/> Use post-consumer recycled, chlorine-free office paper and envelopes (or FSC certified paper, Forest Stewardship Council)	
<input type="checkbox"/> Paper-use guidelines to limit use and encourage efficient use/reuse (double sided copies, scrap paper for re-use, etc.)	
<input type="checkbox"/> Office paper is recycled (after use of both sides)	
<input type="checkbox"/> Newsprint and other paper is recycled	
<input type="checkbox"/> Soy-based ink, refilled/recycled ink and toner cartridges	
<input type="checkbox"/> Proper disposal of ink cartridges, batteries, computers, printers, copiers	
<input type="checkbox"/> Junk mail reduction efforts & limit mailings	
<input type="checkbox"/> Serve Fair Trade coffee & tea	
<input type="checkbox"/> Provide healthy snacks	
<input type="checkbox"/> Encourage re-usable mugs and water bottles	
<input type="checkbox"/> Plants in office for beauty and air quality	

NARTHEX/GATHERING**Comments**

<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	

<input type="checkbox"/> Equipment (TVs, sound systems, computers) turned off when not in use	
<input type="checkbox"/> Serve Fair Trade coffee and tea	
<input type="checkbox"/> Healthy/organic/locally grown food items	
<input type="checkbox"/> Provide reusable mugs/mug rack	Encourage people to bring their own plates, cups & utensils to meals.
<input type="checkbox"/> Biodegradable plastic utensils & eco-friendly plates when disposables are required	
Other areas of opportunity or concern:	

SANCTUARY

Comments

<input type="checkbox"/> CFLs used where possible/applicable	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	
<input type="checkbox"/> Equipment (TVs, sound systems, computers) turned off when not in use	
<input type="checkbox"/> Energy efficient ceiling fans with reverse motion option	
<input type="checkbox"/> Decorative lighting used sparingly and/or controlled optimally	
<input type="checkbox"/> Living flowers or plants on the altar to be kept or planted later	
<input type="checkbox"/> Beeswax candles rather than (oil-based) paraffin wax candles.	
<input type="checkbox"/> Local wine for communion	
<input type="checkbox"/> Provide communion bread of whole grain, organic and locally grown.	
<input type="checkbox"/> Fair Trade palm fronds for Palm Sunday.	
<input type="checkbox"/> Limit or eliminate use of paper for bulletins (re-use where possible)	
<input type="checkbox"/> Green decorations for holidays.	
<input type="checkbox"/> Worship outside in nature	
Other areas of opportunity or concern:	

CLASSROOM Name/Number :**Comments**

<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	
<input type="checkbox"/> Equipment (TVs, sound systems, computers) turned off when not in use	
<input type="checkbox"/> Natural light	
<input type="checkbox"/> Recycled paper and scrap used for art projects	
<input type="checkbox"/> Recycling bins in classrooms	
<input type="checkbox"/> Limited & double-sided photocopying	
<input type="checkbox"/> Healthy food for snacks and meals	
Other areas of opportunity or concern:	

CLASSROOM Name/Number :**Comments**

<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	
<input type="checkbox"/> Equipment (TVs, sound systems, computers) turned off when not in use	
<input type="checkbox"/> Natural light	
<input type="checkbox"/> Recycled paper and scrap used for art projects	
<input type="checkbox"/> Recycling bins in classrooms	
<input type="checkbox"/> Limited & double-sided photocopying	
<input type="checkbox"/> Healthy food for snacks and meals	
Other areas of opportunity or concern:	

SOCIAL HALL**Comments**

<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	
<input type="checkbox"/> Equipment (TVs, sound systems, computers) turned off when not in use	
<input type="checkbox"/> Energy efficient ceiling fans with reverse motion option	
<input type="checkbox"/> Healthy/organic/locally grown food items for snacks and meals	
<input type="checkbox"/> Biodegradable plastic utensils & eco-friendly plates when disposables are required	
<input type="checkbox"/> Fair Trade coffee & tea	
<input type="checkbox"/> Share leftover food and compost food waste	
<input type="checkbox"/> Post-consumer paper napkins and towels	
<input type="checkbox"/> Reduce or eliminate styrofoam, plastic cups, and other disposable products	
<input type="checkbox"/> Provide mug rack	Encourage people to bring their own plates, cups & utensils to meals.
<input type="checkbox"/> Provide ceramic plates and cups, glasses, and stainless-steel utensils	
Other areas of opportunity or concern:	

ADDITIONAL ROOM Name/Number:**Comments**

<input type="checkbox"/> CFL or LED lamps	
<input type="checkbox"/> Adequate shading to prevent unwanted solar heat gain if applicable.	
<input type="checkbox"/> Equipment (TVs, sound systems, computers) turned off when not in use	
<input type="checkbox"/> Natural light	