

**Application for Certification as “Green Sanctuary”
First Unitarian Universalist Society of Marietta (OH), FUUSM**

FUUSM is responsible for two buildings located at the corner of Third and Putnam Streets in downtown Marietta, OH. Originally constructed in 1857, the church building is on the National Registry of Historic Sites (since 1973). It contains approximately 4,000 ft² of area in the sanctuary and another 4,000 ft² in the basement areas, which are used as a Fellowship Hall, child-care center, kitchen, rest rooms, and storage.





FUUSM Sanctuary

The RE building, located immediately next door on Third Street, contains approximately 1,700 ft and is used for religious education and to house the offices of the full-time minister and part-time clerical assistant. It was originally constructed in 1871.



FUUSM RE building

Both buildings have undergone renovations and substantial modifications for weatherization including insulation of the attic, of windows and doors and upgrades of heating facilities. There is a small area of outdoor green space between the two buildings where a peace garden, commemorative bricks, and benches are located. FUUSM owns no parking lots.

A Green Sanctuary (GS) Committee, composed of 18 active members has existed at FUUSM since 2006 and for most of those years has conducted monthly meetings in addition to the sponsorship of several special events. The Green Sanctuary Committee has recently embarked on a process of appreciative inquiry to review its many accomplishments over the past five and half years and has made a commitment, endorsed by the minister and the entire FUUSM congregation, to seek official status from UUA as a “green sanctuary” congregation.

Professional Energy Audit. The professional audit of the two buildings was conducted by Community Resources, Inc. of Parkersburg, WV in May 2012. The results of that audit are included as an appendix to this document.

Congregational Assessment. FUUSM, has been involved in environmental awareness, environmental education, environmental justice and sustainable living through its activities of worship and celebration, religious education, personal efforts, congregation and community involvement for several decades. The congregation has organized concerted efforts in environmental activities most seriously since 2006 with the establishment of its Green Sanctuary Committee. The following summary, listed according to categories of the UUA Green Sanctuary Manual, identifies the major activities of FUUSM environmental initiatives. The date of each activity is listed in parentheses:

Worship & Celebration

- Theme of summer services – “Cherish the Universe” (2008)
- First “Harvest Dinner,” funded mostly by receipts from recycled aluminum collected and sold by the GS Committee, when locally grown, organic or fair trade foods were prepared and served-educational component included (October 2008)
- Ethical eating breakfast (organic, non-toxic foods) held before service on same topic; attended by 75 members & friends (2009)
- Second Harvest Dinner held (fall, 2009)
- Testimonials presented by congregation members at service on personal green initiatives (2010)
- Overnight and cookout with nature hike and environmental activities at minister’s farm (2010)
- Annual Harvest Dinner serving food made from organic and locally grown crops (fall, 2010)
- Christmas tree set up in church sanctuary decorated entirely with recycled ornaments; tree also recycled (Christmas, 2010)
- “Green Keys” piano concert (pianist – Frank Horvat) held in sanctuary (2011)

Religious Education

- “Green” section added to FUUSM library in RE building (2008)
- “Simply Green House” constructed with recycled materials, solar panels shown to intergenerational group
- GS Committee members attended environmental workshop for UU Ohio Meadville District (2010)
- “Eco House” (small-scale demonstration of house constructed for sustainable energy) donated to the nursery (2010)
- Visit arranged for BRIDGES (religious education program for all ages) participants to home of GS Committee member who has organically farmed for 33 years and lives in a self designed highly self sustaining and eco friendly home ; nature hike included (2011)
- Series on environmental education conducted as part of adult religious education (April – June, 2011)
- The Chair of FUUSM’s Social Justice Committee spoke with fourth-eighth graders in the BRIDGES (religious education) Program a couple of times about hunger, what people around the world eat, and some current events/politics/tolerance discussions and their personal experiences in that arena. The teacher of that group talked with them about how they might exhibit green habits in their personal lives as youth and green clothing choices (such as shopping thrift shops as a way of recycling clothing, clothing swaps with friends, recycling/repurposing clothing items) and talked about various sources of fabrics used to make new clothes (organic fabrics, natural fibers vs manufactured fabric, resources necessary, etc.).

Environmental Justice

- GS committee assumed sales of fair-trade coffee (Equal Exchange brand) and added the sale of fair-trade, organic, locally processed and distributed brand (Silver Bridge); sales held most Sundays after services, average sales \$80/week – in practice since (2010)
- Equal exchange chocolate added to sales of fair-trade coffee each Sunday since (2011)
- FUUSM sponsored showing of the film, *Gasland*, about environmental consequences of hydraulic fracturing techniques for extracting natural gas
- Hydrofracking Interest Group initiated to educate about the practice of horizontal hydrofracking for extracting natural gas; meets in Fellowship Hall regularly; FUUSM members in leadership roles – in practice since (2011)
- World Food Day (fall, 2012) dinner sold at annual FUUSM Service Auction; purchased by 15 who bought tickets(more ticket sales expected before event) (fall, 2011)

Sustainable Living

- Commitment to eliminate paper/plastic materials for meals, events, and outreach to other organizations; commitment sustained to the present (2006)
- Energy audit (non-professional) conducted (2006)
- Green Sanctuary Committee recommended that the FUUSM Board of Trustees address issues in the energy audit; issues of insulation in church building addressed (air leaks in windows, weather stripping around doors) (2007)
- Programmable thermostats installed in church building (2006)
- Green Sanctuary Committee recommended to the board the environmental issues be addressed through recycling, landscaping and religious education (2007)
- “Green” cleaning supplies acquired for kitchen and other cleaning – in practice since (2007)
- “Green-origin” toilet tissue & paper towels placed in kitchen, rest rooms – in practice since (2007)
- Recycling containers (sorted by type) placed in kitchen – in practice since (2007)
- E-waste collected by GS Committee – in practice since (2007)
- Programmable thermostat installed in RE building (2008)
- Commitment to using CFL light bulbs in all locations of both buildings – in practice since (2008)
- Planters with organically growing herbs placed near the door to the nursery (2010)
- Rain barrel and rain garden projects supported and encouraged by GS Committee (2011)

Congregational and Community Involvement

- Green Sanctuary Committee charter formed (2006)
- Connections established with local and regional environmental groups including Marietta YMCA (community gardening), Friends of the Lower Muskingum River, Ohio Environmental Council
- First FUUSM participation in Marietta Earth Day (spring, 2008)
- FUUSM established large plot on Harvest of Hope Community Garden as a model of organic gardening and contribution of fresh vegetables to local food pantries – in practice since (2009)
- No till and organic workshops for all congregation members and the community sponsored by GS Committee(2009)
- Yard sale open to entire community with theme of reduce/reuse/recycle (spring, 2009)
- FUUSM participation in Marietta Earth Day (spring, 2009)
- GS participated in church service auction with donation of garden tools basket (2009)
- FUUSM participation in Marietta Earth Day (spring, 2010)

- FUUSM established formal relationship with SYFA (Save Your Future Association), a project to support access to safe, potable, convenient water in north Cameroon, with leadership of FUUSM member who is former Peace Corps volunteer in that area; began fund raising for SYFA – in practice since (2010)
- FUUSM portion of Community Garden included for the first time in annual Marietta Garden Tour (summer, 2010)
- “Green Booklet,” entitled “It’s Easy Being Green” completed and distributed; contains information on energy sustainability, ethical eating, recipes, green household items, lawn and garden care with sustainable practices, community gardening, personal health, community health and recycling.
- Custom initiated to bring in “spring green treats” from FUUSM members gardens for free distribution to other FUUSM members each Sunday during the spring gardening season(2011)
- Workshops on gardening (organic, composting, planting, soils, hydroponics, worms, and other topics) held at FUUSM Fellowship Hall, open to the community; attended by over 100 persons (January-March, 2011)
- Workshop on canning presented by two FUUSM members, open to the community (summer, 2011)
- FUUSM participation in Marietta Earth Day (spring, 2011)
- GS Committee arranged two bulletin boards in Fellowship Hall on environmental issues – in practice since (2011)
- GS Committee supported Marietta Recycling Center with a contribution of \$50 (fall, 2011)
- Workshops on gardening (organic, composting, soils, winter gardening, and other topics) held at FUUSM Fellowship Hall, open to the community, attended by over 100 persons (January-March, 2012)
- Participation in Marietta Earth Day with recycling demonstration (spring, 2012)

Personal Assessments

- 40-40-40 commitment presented at worship service and subsequent follow-up – at least 40 members asked to commit to at least one new activity of environmental sustainability for 40 days; 45 actually achieved the objective, held on the 40th anniversary of Earth Day (spring, 2010)
- 30-30-30 commitment presented at worship service and subsequent follow-up – at least 30 members asked to commit to at least one new activity of environmental sustainability for 30 days; 31 actually achieved the objective (spring, 2011)

Action Plan for Application to UUA for Green Sanctuary Certification
First Unitarian Universalist Society of Marietta (FUUSM)
(Must include at least 12 new initiatives)

1. Promote booklet, *It's Easy Being Green*, through new web site (sustainable living)
2. Increase visibility of Green Sanctuary Committee in the weekly order of worship through “green tips” and inspirational messages about sustainable practices and add these same “green tips” to the FUUSM web site
3. Establish intergenerational congregation program maintaining and harvesting yield from 10,000 sunflower seeds at farm of FUUSM member(planted spring of 2012) (religious education)
4. Arrange and conduct world-wide water awareness event, linked to SYFA Project ,described in Congregation Assessment (worship & celebration)
5. Arrange and conduct new summer intergenerational programs of nature hikes, canoe trips, and other activities of environmental education (religious education)
6. Increase congregation involvement in Fracking Interest Group activities (environmental justice)
7. Collaborate with regional group of Quakers on addressing the issue of mountain-top coal mining (environmental justice)
8. Expand the involvement of children (from the congregation, school districts and community) in the FUUSM portion of the Harvest of Hope community garden (religious education)
9. Conduct series of classes on human-induced global warming (religious education)
10. Arrange for congregation participation in “River Sweep” (community clean up along the Muskingum and Ohio Rivers) (environmental justice)
11. Commit to presenting at least one vegetarian entrée option at each circle supper (monthly event open to all FUUSM members, usually attended by 12-20 people) and at FUUSM-sponsored suppers, community meals and pot luck events (sustainable living)
12. Work with building and Grounds committee.to follow up on energy audit recommendations.
13. Initiate ethical eating Supper Club
14. Join existing Harvest of Hope program to serve free meals to community using some locally grown products. Intergenerational, church wide.

Energy Assessment Report

A full energy assessment was performed on the two story office/meeting building next to the church. This assessment included a dual blower door test that depressurized the inside space of the structure to identify air leaks. A thorough visual inspection was also performed to identify other areas that would result in additional energy savings. Using the data collected during these procedures, a NEAT (National Energy Audit Tool) assessment was completed that calculates energy usage and opportunities for savings.

Due to the size and complexity of the church building, a blower door and NEAT assessment could not be performed. However, a visual walk through inspection of the building was made with accompanying recommendations.

Explanation of the NEAT Assessment:

The NEAT assessment has various acronyms and statistical data that may not be clearly understood. This summary report will outline the main points, however a more detailed presentation or explanation of the report will be provided at your request.

There are eight recommendations that arose after completing the NEAT audit. (Found in section two, **Energy Saving Measure Economics**)

1. Build attic hatch
2. Infiltration Reduction - (i.e. Caulk and Air Seal)
3. User-Spec Ceiling R - (Attic Insulation)
4. Wall Insulation
5. Floor Insulation R-19
6. DWH Replacement – (Hot Water Tank)
7. Practice Lead Safe Weatherization – (Requirement if we perform work)
8. Vapor Barrier Needed in Basement – (Requirement if we perform work)

To understand the cost of performing these upgrades and the amount of savings please refer to the first and second columns under the Energy Saving Measure Economics section. The second column outlines the approximant cost of performing the install, which includes labor and material if performed by an outside contractor.

The first column states the approximate dollar amount that can be expected in savings per year if you perform the upgrade. For example, if you elect to install #3, Attic Insulation, you can expect it to cost roughly \$2,058. However, over the next twelve months you can expect to save approximately \$1,069 in energy costs. This means, it would take only two years to breakeven on the cost of this install based on current energy costs. You will notice items such as #1 does not show a dollar savings. This is because it works in conjunction with other items and needs to be performed in order to maximize efficiency. Numbers 7, and 8 are items that are only required if we perform the work due to regulations.

The next important section of the NEAT assessment is the **Pre/Post Retrofit Energy and Loads**. This section outlines the BTU's / year or energy usage based on the Manual J Sections. The first two columns show the baseline or the starting point for you energy consumption. The third and fourth columns show what you could expect your usage to be after all the upgrades have been performed. For example, the pre heating BTU / year is 186.5. If you perform all the recommended upgrades your post annual BTU's could be as low as 57.2.

We appreciate the opportunity to perform the energy assessments for you. Again, if you have any questions or would like further information regarding this report, please contact Randy Shears at 304-485-5525. In addition, we are available to assist in any way we can with the building modifications identified in the report if you desire. We will gladly provide a free quote for any services you desire.

Recommendations for Church

Caulk all windows with brown caulk to air seal.

Attic hatch needs 2" R-max to insulate and weatherstrip kit to air seal and stop air leakage into attic.

Where attic floor meets arch window air is leaking around into attic. Air seal with caulk and foam board and insulate above opening.

Use mortar to seal large holes in exterior brick walls and stop infiltration.