MASSACHUSETTS INTERFAITH POWER & LIGHT **SUCCESS STORIES**

Charles Street AME Church, Roxbury, MA

Taking The First Step Of The *Caring for God's Creation* Faith Journey

The congregation of Charles Street AME Church is old and significant to African Americans in Boston. After the Civil War, the black population of Boston purchased the Charles Street Meeting House in 1876 in Beacon Hill. The AME congregation remained there until 1939, when it relocated to the building at Elm Hill Avenue and Warren Street in Roxbury. The congregation also owns and uses a large house, directly across the street. The building provides space for offices, programs and an apartment for a pastor.

As with most old Houses-Of-Worship and associated buildings, these buildings are energy hogs. The congregation concluded that continuing to spend money on inefficient heat, hot water and electricity-using systems was not sensible. Doing so not only meant that funds were not available for important programs of the congregation, it also meant that the impact of the inefficiency ("carbon footprint") was contributing to a degradation of the environment. A degraded environment means an unhealthy world. Caring for the world is a faith journey, one that has many roads including the practical actions of environmental stewardship.

Knowing that it would take a continuing hard work, the congregation determined that such an effort needed to have a **First Step**. It was decided that improving the thermal performance ("tightening up") of the Elm Hill Avenue building was the place to start. Help was obtained from MIP&L, and from *Next Step Living* ("NSL"). (1-866-867-8729, **www.nextsteplivinginc.com**) NSL is based in Boston. NSL works with homeowners to save money on energy bills, keep homes comfortable, conserve energy and help the environment. Congregation members, MIP&L and NSL evaluated the actions needed, then put together a plan for initial beneficial actions. It was also important to do things that could involve members (especially younger members) who would then learn the "what" and "how" for their own homes.

Results

The pictures on the next two pages tell the story. The **First Step** was a day-long *Barnraising* work day on December 5, 2009. The actions included reducing ways for cold air to come into the building by (1) installing interior "storm" windows, and (2) insulating the basement door, (3) lower use and cost of electricity by installing Compact Florescent Lights ("CFLs"), and (4) lowering water use and making the hot water temperature "just right" to lower cost of gas to heat the water. The MIP&L *Everyday Environmental Stewardship* **Briefs** on (1) Interior Storm Windows, (2) Thermostats and (3) CFLs are good summaries to look at. Go to the web site…**http://www.mipandl.org/ees.html**

#1 — 5 Elm Hill Avenue is a 3 story + basement building, providing office, meeting and residential space.

#2 — Wood hollow-core door with 1.5" rigid insulation added. "Great Stuff" foam insulation used to seal around frame and cracks in shed over stairs down. Basement ceiling had blown insulation some years back. The objective with insulation and caulking is to "fill every hole" so that cold stays outside in winter.

#3 — Gas-fired domestic hot water ("DHW") tank having temperature setting lowered from HIGH to LOW. DHW was tested at the kitchen sink, and measured over 150°, which is scalding. Should be at 120°, or even less if being used for children such as at a Day Care Center. The temperature setting is an easily-understood dial, and can be adjusted by just about anybody. Setting lower – and installing low-flow aerators on faucets and low-flow showerheads — means less water and less DHW, so use reduce then cost$ reduced. Adding an insulation blanket to the DHW tank can also help, even for newer DHW tanks which are better insulated than old.

#4— Pipes over boiler before (above) and after (below). Insulate heating and DHW pipes in non-occupied spaces. Get heat and domestic hot water where the people are!

#5— All basement windows now have interior “storm” window installed. This significantly improves thermal performance is this large “hole” in the wall. The cracks and voids around the windows (and especially in the ceiling above) filled by spraying “Great Stuff” foam and adding fiberglass insulation.

#6 —Interior “storm” windows are easy to make, and are light weight. Wood frame (above) is nailed together at corners. Plexiglas is cut to since at supplier. Measure carefully! It has blue wrap to keep saw dust and scratches off. Plexiglas is adhered to wood by glue and then screwed to frame. Weather stripping is then added around edge to create a good seal between this new storm window and existing window frame.

#7 — After pre-drilling holes for screws, attach window in existing window frame. Some interior “storm” windows (such as these) can stay year round. In occupied spaces where windows will be opened for circulate, remove in late-Spring and install again in mid-Fall. In occupied spaces “storms” should be painted to match window frame.

#8 — And more holes to fill, in upstairs rooms! If a pen can fit into one hole and there is a void all around, imagine how large the total “hole-in-the-wall” is!