



October, 2022.

An Introduction to Net Zero Faith Communities

Our Objective: To reduce Greenhouse Gases (GHGs) dramatically by upgrading the mechanical systems (heating, cooling) in religious buildings of every kind.

The Net Zero Churches project has taken off in only a few short months. In a discussion in February, 2022 between representatives of two Anglican dioceses (Montréal and Niagara, around Hamilton), we realized that we hoped to find an appropriate response to the *Climate Crisis*. Since the Crisis was all about GHG, how could we rapidly reduce the GHGs that individual congregations were producing?

Our two dioceses had been working on this issue, and each brought different strengths. We had also been watching what others were doing.... It seemed to us that most Canadians were convinced that there was a crisis, that humans created the GHG that have caused that crisis, and that they were ready to take action...except that they did not know what to do.

Now we have 10 dioceses in the process of starting up, and discussions with several other religious groups!

For small and medium-sized buildings, the answer is often quite simple, and in most provinces it pays for itself relatively rapidly: change to geothermal heat or air-source heat pumps. Both of these are proven technologies, much more efficient than traditional electric baseboards or furnaces, and with some encouragement (and some help with loans from the diocese, in some cases), they are very do-able. This is especially so when the mechanical equipment is at the end of its life, or if there is a grant (like from oil to electricity in Québec).

So we have set up a process that goes region by region (and in the case of the largest dioceses, it is likely to go area by area within the diocese):

1. Helping religious groupings to review their common policies:

- Are all renovations required to be “green” in some way?
- Are all the building advisors working in the same direction?
- Have they set a target date for becoming Zero Emitters?
- Are there policies in place to provide loans for things that are good for the environment?
- Are the key leaders saying, both publicly and privately, that it is important to take action and to be green?

2. Helping congregations in a step-by-step process:

- Do a simple energy audit: how many tons of GHG do they emit?
- Do a building assessment, done by an ordinary person, and that includes the installation dates of their mechanical equipment
- Offer thermal imaging to identify major heat leaks
- If they want to change their mechanical system, help selecting equipment, seeking grants, fund-raising and borrowing
- Teach them how to teach their members how they could change the mechanical systems at their homes, too
- Teach them how to teach their members how they could share this action opportunity with their neighbours

All of this is outlined on our web site, www.netzerochurches.ca, which is designed to include many denominations and faith groups. (We are looking forward to supporting netzeromosques.ca, netzerosynagogues.ca and netzerogudwaras.ca!) **Contact us to consider this for your religious group!**

We approach this region by region, so that the expertise stays local, and because the climate and energy systems change based on geography. We are also convinced that the “sales process” of enrolling new congregations works better from within the diocese or regional grouping.

We are approaching this at the mechanical system level, because a) being more systematic has not worked well so far, and b) the crisis requires us to reduce GHG rapidly, rather than simply lowering our total energy consumption.

Finally, we have a policy of creating case studies for those churches where we don't yet have a simple solution. One such situation is buildings that are heated with hot water. In order to switch to an air source heat pump, we would likely have to change all our radiators, because we would be circulating water at 40C rather than at 60-80C. Is that feasible? Could we do that with a large church building? This needs some more study, but we already have two universities and Humber College involved, and they should be able to advise us.