



Go Deep for PCW
www.pcw.edu

The Go Deep for PCW Capital Campaign / Case For Support

Who We Are

The Presbyterian Church of Wyoming's Mission Statement declares that We are on a Journey to learn together to be followers of Jesus Christ, reflecting God's light into the world. This journey of following Christ invites us to move beyond the shallows to go deep. Over the last 154 years, PCW has been going deep in mission, in learning, in worship, in love of God and neighbor. We are now entering a new era and a new invitation to put out from the safety of shore and go into the deep waters. Go deep for our



mission, Go deep to protect God's creation, Go deep for the next generation, Go deep for our community, Go deep for our future.

Our building has been a place for people to gather, study scripture, worship God, and fulfill our mission to the wider community and the world. Its location and architecture have also been beacons, reflecting God's light and love as an anchor to the Wyoming community.

In addition to providing space for our ministry teams and worship services, our building currently houses Lads and Lassies Community Preschool, Boy Scouts, Narcotics Anonymous, other support groups, and community groups such as the Herb Society.

Our middle school and high school youth

spaces have become home to youth from our church and where youth from other churches and the community join our ministry for nurturing and growth. Our building has also become home to Ukrainian refugees. We have been able to bless our community and various non-profit entities by providing space for special concerts and events, such as the vigil to commemorate anniversaries of the war in Ukraine.

Our Need

The current building that houses our ministry is in need of a complete overhaul of our HVAC systems. The typical life expectancy of these systems is 20 years. The boiler, chiller, and air handling units servicing the older portion of the building are 30 years old, and the components are failing. We have annually been replacing various components, but up to now none of the major components have failed. Two air handling units serve the sanctuary, but only one functions now. We know that we will continue to see system failures. However, we do not want to replace individual components for an outdated system. Replacing the whole system with a newer, much more efficient system is the appropriate answer. We may not be able to utilize our current approach much longer. The HVAC servicing the newer portion of the building is a much simpler system. But it is now 20 years old, and while still functioning, will reach its service life and need to be replaced in the next few years.

Replacing our HVAC system is a critical project in maintaining the usability of our facility for the ministries listed above. It also gives future generations of PCW members the opportunity to explore ways to use our building as a blessing to the community.



The Solution

Our facility team has been exploring options. With the help of a national mechanical engineering firm, they have determined a geothermal heating and cooling system will provide the best overall solution to replacing both the current system that is failing and set us up for the replacement of all of the systems. By drilling deep, to install a well field under our parking lot, we can tap into the ground's steady temperature to provide an efficient and economical energy source for our HVAC system. Geothermal is a time-tested and reliable technology that will not adversely affect our drinking water or harm the aquifer that runs under Wyoming. In fact, it has been installed successfully in the neighboring communities of Glendale and Lockland. Geothermal is safe.

Closed-loop systems

Closed-loop geothermal heating and cooling systems (Figures 3 and 4) circulate a heat transfer fluid, usually water with an antifreeze additive, through a loop or multiple loops of piping installed below ground or within a surface water body. A closed-loop system does not involve the withdrawal of ground water. In the winter, the earth's heat is absorbed by the heat transfer fluid within the piping and transmitted to the unit's heat exchanger and compressor to provide heating. In the summer, the cycle is reversed and the system removes heat from the building and transfers it into the earth to provide cooling.

Direct exchange systems are a type of closed-loop geothermal heating and cooling system that uses loops of copper piping through which a refrigerant is circulated. The copper piping is installed in pits, trenches or vertical borings.

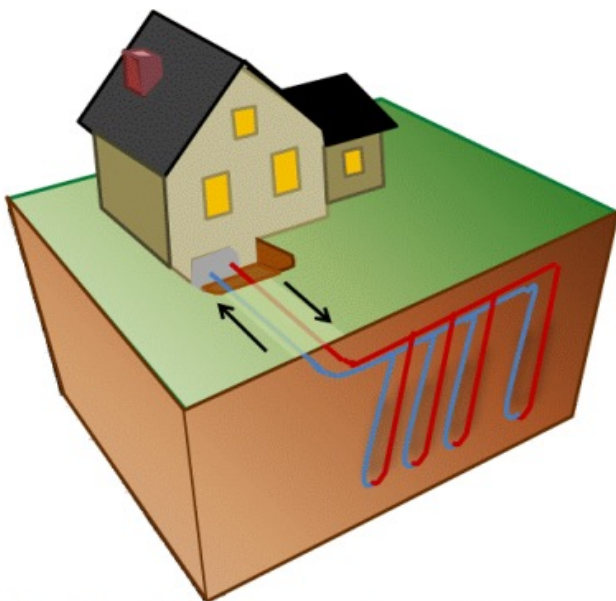


Figure 3 - A closed-loop geothermal heating and cooling system with vertical loops. Arrows indicate the flow direction in the summer, when the system removes heat from the building and transfers it into the earth. In winter, the flow direction is reversed and the system removes heat from the earth and transfers it into the building.

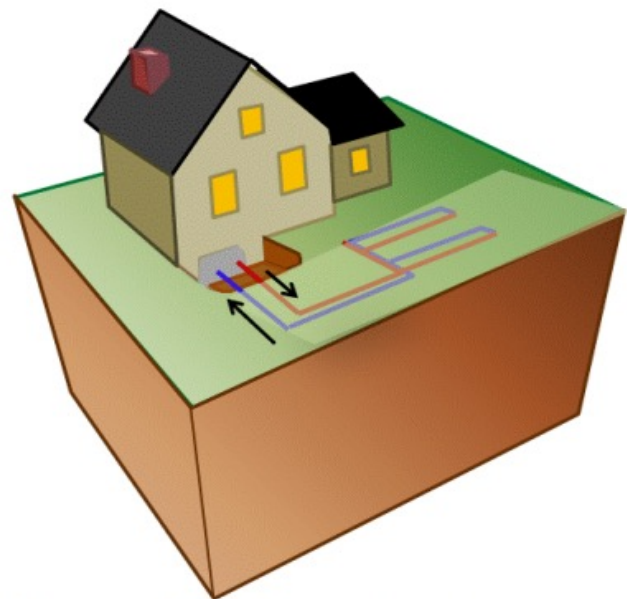


Figure 4 - A closed-loop geothermal heating and cooling system with horizontal loops. Arrows indicate the flow direction in the summer, when the system removes heat from the building and transfers it into the earth. In winter, the flow direction is reversed and the system removes heat from the earth and transfers it into the building.

Geothermal heating and cooling has multiple advantages over a more traditional chiller and boiler system.

1. It will decrease the church's carbon footprint. Our energy usage will decrease from an estimated 59 kBTU to 40 kBTU, eliminating the need for burning natural gas in our HVAC systems. This will also significantly reduce our monthly utility bills.

2. Geothermal HVAC combined with modern building controls will allow us to harness the steady temperature of the earth to create a more efficient and comfortable building.

3. The geothermal field itself will outlast the life of a typical chiller and boiler. While the traditional air handling components of a geothermal system will need to be replaced in 20-25 years, the geothermal field will last 50 to 100 years, decreasing the cost of the next HVAC project that will be faced by future generations.

4. A geothermal HVAC system allows our congregation to maximize our recent Earth Care Congregation certification more fully.

5. Government rebates that became available last year bring the cost of geothermal energy down to the same level as a traditional chiller and boiler system, making this a long-term solution that is affordable now and will benefit future generations.



Geothermal Benefit

- Less space needed for equipment
- Noise reduction vs. other systems
- Carbon emissions eliminated on site
- 50+ year life expectancy of well field
- Up to 40% Direct Rebate through the Inflation Reduction Act
- Operating costs saving 40% more efficient than traditional systems



We anticipate that a geothermal system will cost \$1.8 million dollars after rebates.

We are targeting a summer 2025 geothermal well field installation while Lads and Lassies is on summer break. In the meantime, we will be working with our HVAC engineer on detailed design and bidding the work to installation contractors. We are mindful of the needs of our building's various tenants and will work with them on contingency plans as timelines for various aspects of the work become more solid.

Our current opportunity is to raise the \$1.8 million dollars needed to fund our HVAC and avoid long-term debt service on the HVAC system.



**Presbyterian Church of Wyoming - Campaign Goal
Gift Range Chart --- \$1,800,000
Three-Year Commitment**

Giving Lever	\$1,800,000	Donors	Subtotal
Lead Gifts	\$200,000	2	\$400,000
Leadership Gifts	\$100,000	3	\$300,000
Major Gifts	\$50,000	6	\$300,000
Leadership Circle	\$25,000	13	\$325,000
Sustaining Gifts	\$10,000	35	\$350,000
Supporting Gifts	\$5,000	25	\$125,000
Total		84	\$1,800,000

Frequently Ask Questions (FAQ's)

1. **When are we going to start the geothermal project?**

In the next few months, a test well will be drilled in the parking lot to complete the engineering study. We anticipate the construction in the summer of 2025, when Lads & Lassies will not be in session, to minimize disruption.

2. **Will all the wells be in the parking lot, and how many of them will there be?**

The test well will determine the number of wells needed for a building our size, but the engineering firm is confident that our parking lot can accommodate what we need.

3. **Why geothermal and not conventional HVAC systems?**

A geothermal system is initially a more expensive option but it has many advantages. The well field provides a 50+ year solution, and it is earth-friendly, eliminating the need to use natural gas to heat and cool our building. It is actually a simpler system than the current mechanical system and will save us monthly operational costs. The federal government's rebate program makes this initial cost very comparable to a conventional, less efficient HVAC system. To summarize, this is the more cost-effective solution for both the short term and long term.

4. **I know we get our drinking water from the aquifer beneath our city. Will this geothermal system be safe?**

Yes, Geothermal HVACs are a very reliable and safe technology. Our engineering firm recommends a closed-loop system, so we'll benefit from the earth's warmth but not directly come into contact with the drinking water. In addition, we will use food-grade glycol in the well system to insure the safety of Wyoming's drinking water and the aquifer.

5. **How much will it cost, and how will it be financed?**

We anticipate a total cost of \$1,736,005 after rebates and \$2,938,342 before rebates. We expect to obtain a construction loan because the capital campaign contributions will be received over three years. We will receive the government rebate sometime after we file our 2025 tax return in early 2026. The cost of a traditional HVAC system would be similar to the cost of a Geothermal system after the federal rebate.

6. **How much money do we have in our building fund?**

Currently, we have funds for property expenses from the Foundation. As mentioned in the annual report, these will be used if need for upcoming building needs. The amount fluctuates somewhat with the market but it was at \$117,953 at the end of 2023.

Frequently Asked Question (FAQ's) continued

7. What is the overall financial position of the church, and why not borrow the entire amount?

The PCW 2023 Annual Report reports that our finances are in good order without debt. It is best to borrow only what is needed in the church's best interest. We have received some pledges and hope some will begin to be paid before monies are needed.

8. How much are paying Church Campaign Services LLC for its services?

We are paying \$25,500 for their assistance and material for fundraising.

9. Can I contribute through PCW's 1870 Foundation?

PCW's 1870 Foundation and the Go Deep for PCW address two separate needs for the church. The 1870 Foundation aims to build a healthy endowment for future needs. The Go Deep for PCW campaign aims to address our immediate needs. Our 1870 Foundation and Go Deep for PCW leaders are coordinating our efforts, but contributions to the 1870 Foundation are separate. We want people to make specific pledges to the Go Deeper campaign. We can't count monies given to the foundation at some later date to cover current campaign needs.

10. What are the plans for making our pledges, and when does the campaign start?

We will have the First Fruits offering on Sunday, June 16th, when supporters are encouraged to give their first gifts towards their campaign pledge. We will collect pledges over three years starting in June.

11. Are these pledges above and beyond what we give to the annual church budget?

Yes, your stewardship contributions are still very much needed to pay our staff, keep the facilities in good working order, and carry out our mission in the community and the world.

12. Has the Session approved the geothermal project and the capital campaign?

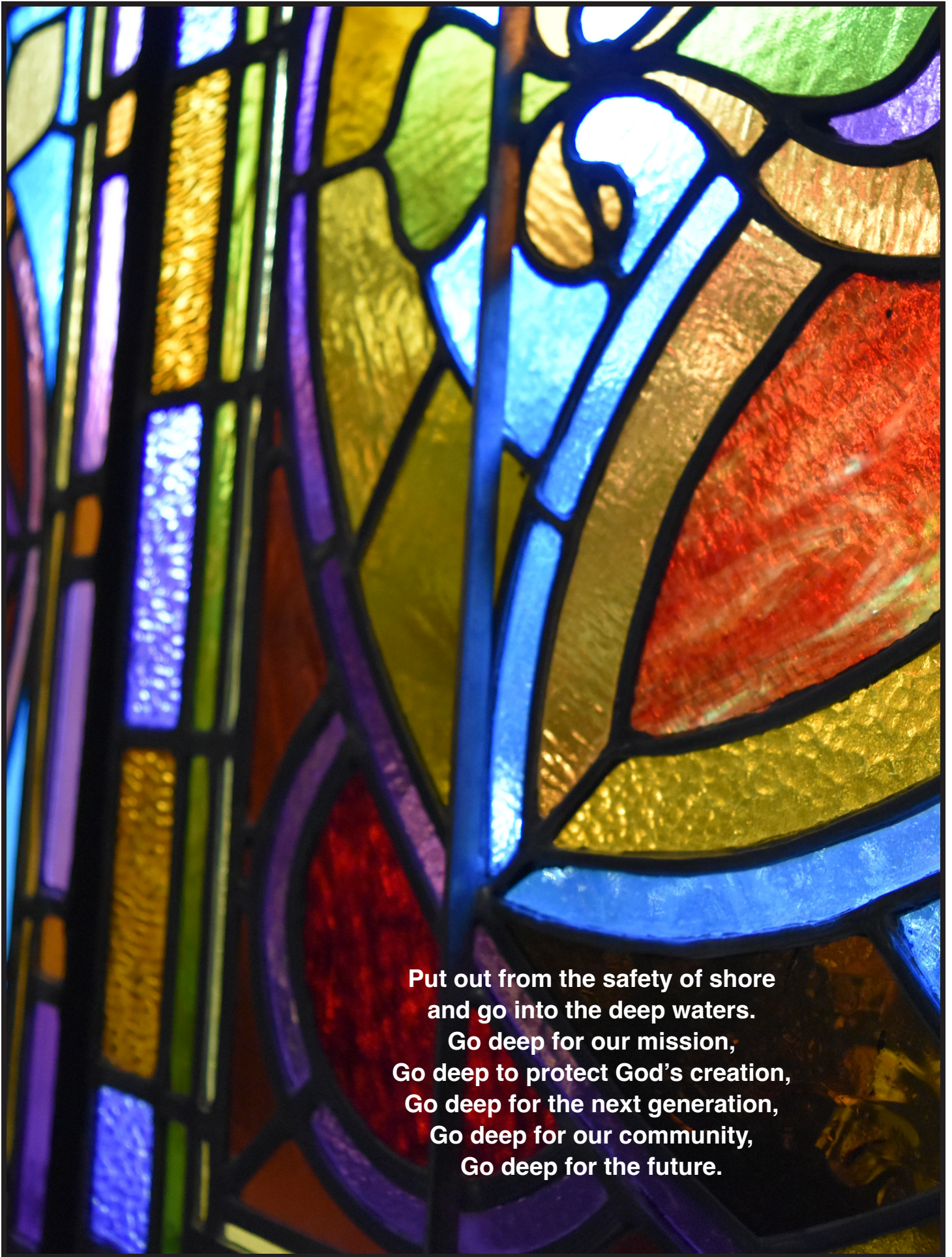
Yes, the Session has unanimously approved and fully supports both.

Capital estimate for the project from the engineering firm, CMTA.

	Geothermal	Sanctuary	Great Room
Subtotals	\$982,520	\$1,039,850	\$648,850
10% Contingency	\$98,252	\$103,985	\$64,885
Area Totals	\$1,080,772	\$1,143,835	\$713,735

Project Total: \$2,938,342 Minus 40% Rebate \$1,175,337 Project Final \$1,736,005





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and go into the deep waters.
Go deep for our mission,
Go deep to protect God's creation,
Go deep for the next generation,
Go deep for our community,
Go deep for the future.**





The Presbyterian Church of Wyoming / 225 Wyoming Avenue / Wyoming, OH / 45215