For Our Retirees, For Us All

Divest Pittsburgh, a project of the Thomas Merton Center, divestpittsburgh.com. Claudia Detwiler, Greg Kochanski, Christopher Bangs, Raphael Cardamone, Mike Telian, and Wanda Guthrie.

Divestment is the Responsible Choice for Pittsburgh

Fossil fuel divestment has swept across North America. It is grass-roots leadership at its finest: Pittsburghers understand that climate change is a real threat, and we do not wish to contribute to that threat.

Today, 501 institutions have committed to divest from fossil fuels. Those institutions collectively invest over $3.4 trillion.[1] Those pension boards and fund managers found that they could act in the public interest while maintaining financial returns.

For more detail on divestment, see Divest Pittsburgh's *Fossil Fuel Divestment FAQ* at divestpittsburgh.com/why-divest/faq.

[1] 350.org. *Divestment Commitments*. gofossilfree.org/commitments/

Climate Change

Fossil fuels pollute. For example, Pittsburgh's air quality problems are the direct result of upwind coal-fired power plants, along with fossil-fueled industry and diesel fracking compressors in narrow valleys. We have known that asthma and heart disease are worsened by poor air quality. Up to now, we have accepted these consequences in exchange for energy, but we now know that the cost of this acceptance is larger than we had imagined.

In addition to health impacts, fossil fuels cause climate change. Burning coal, oil, and gas adds greenhouse gases like carbon dioxide and methane to the atmosphere — those gases trap the sun's energy and gradually overheat the planet. We are seeing early impacts of the warming today, and worse is on the way: the ocean is rising and the ice caps melting, water is becoming more scarce and droughts more common, storms are becoming more powerful and weather more extreme.[2]

As long as we continue burning fossil fuels, climate change will continue to worsen. Climate change is a chronic problem; it will continue to worsen for about half a century after we eventually switch from fossil fuels to renewable sources of electricity. Until that happens, we accumulate more CO_2, more future warming, and more future climate trouble each year.

Humanity is creating a long, slow climate disaster; our generation is both the first to understand the problem, and the last generation that can stop it before it becomes a crisis.

The Moral Case for Divestment

While fossil fuels have let us power our society, they are becoming unnecessary, and the industry has become a severe threat to our children and grandchildren. The 501 institutions that divested did so because they could not, in good conscience, participate in the ecological, health, and economic damage that fossil fuels are causing.

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[2] http://climate.nasa.gov/effects/

Divestment[3] sends a clear message: coal, oil, and gas are fuels of the past and we cannot afford to continue business as usual for much longer. It revokes the fossil fuel industry's social license to operate and forces the financial industry to think about the long-term impacts of its investments.

To solve climate change, we will need to rebuild much of our economy over the next thirty years. This massive undertaking requires everyone, including the financial system; divestment is a way of connecting climate change to the financial realm.

If Pittsburgh leads on this issue, it will be easier for the next city to follow. And, if our City joins the dozens of other communities that have divested, we make a powerful moral statement. The Pittsburgh CMPTF has an important vote to cast; leadership on this issue would make Pittsburgh proud for generations to come.

The Financial Case for Divestment

The long-range financial case for divestment boils down to the fact that the fossil fuel industry needs to shrink and disappear over the next several decades. That means, that if the pension funds buys fossil fuel stocks now, those stocks will be less valuable when our current employees retire and we sell those stocks to pay their pensions.

The financial case for divestment is based on two solid conclusions, the result of years of climate science:

- The world has a limited amount of fossil fuel that we can burn before climate change becomes too damaging and dangerous. This is our "carbon budget".
- At our current rate of consumption, we will burn through this budget within less than a lifetime. Before the end of the carbon budget, we must bring our consumption of fossil fuels to (nearly) zero.

We don't think that humanity is stupid enough to go beyond the carbon budget. Over the next decade or two, climate change effects will become more obvious and severe, and we think that appropriate action will be taken.

Because we must reduce our consumption of fossil fuels as approach the end of our budget, the sales of fossil fuel companies will shrink, and one should expect their profits and stock valuations to shrink along with their sales.

When will it happen?

At the recent Paris Climate Summit, 187 countries agreed to ambitious reductions in carbon emissions. The Paris agreement aims to limit global warming to significantly below

[3] Fossil fuel divestment is modeled on other successful divestment campaigns like the campaign against Apartheid in South Africa. Pittsburgh was one of the first cities to divest from Apartheid South Africa, helping push that movement forward.

2 Celsius (3.6°F). To keep warming below 2 Celsius, global fossil fuel use must be reduced by at least half by 2040[4]; more and faster reduction is necessary to hit the desired 1.5 Celsius goal (2.7°F).

One concrete step is the European Union's Emissions Trading System. This is already in operation, and plans 43% reductions by 2030. In the US, the EPA's Clean Power Plan mandates a 32% reduction in fossil fuel use in the electricity sector by 2030, and even if the particular version doesn't survive the Supreme Court, there is no scientifically plausible way to avoid deep reductions by 2040. Most other nations are expected to reduce fossil fuel use over 2020-2040.[5]

Keep in mind that technological improvements may well reduce fossil fuel use before 2040. All it takes is for the average price of solar and wind electricity to go below the cost of generation from fossil fuels. If and when that happens, fossil fueled power plants would be retired fairly rapidly. A notable trend is that the cost of solar photovoltaic has been decreasing[6], and as it becomes more cost-effective, the amount of solar photovoltaic power produced has doubled each year since 2008[7], and other renewables have also shown rapid growth.

Note that 2040 is an interesting date, because it means that much action on climate change will take place during the time horizon of our retirement funds. For instance, if we purchased stock towards the retirement of a 30-year old employee, that employee will be just 54 in 2040 and we might still be holding that stock.

How will it happen?

We expect that the fossil fuel use will be reduced by the regulation of emissions, carbon trading, and technological replacement.

We expect that technological improvements will reduce the costs of renewable energy over time. Wind and solar have already become cost-competitive with fossil fuels in some locations under certain conditions, and should only become more efficient and productive as technologies improve. Over the next two decades, they are expected to capture an increasing fraction of the electrical power market.

Both of these factors will likely cause the fossil fuel industry to shrink over the period 2020-2040, and as its revenue shrinks, its profitability and stock values should also shrink.

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[4] UK Met office best-case AVOID scenario, and IPCC scenarios RCP2.6 and RCP4.0.

[5] For instance, China is expecting to drastically reduce the amount of fossil fuels burned per unit GDP, though the total consumption may grow to 2030 because of their increasing GDP. After 2030, they expect their total consumption to decrease.

[6] http://www.nrel.gov/docs/fy14osti/62558.pdf

[7] http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_1_01_a

The big picture is that fossil fuel companies own far more fuel than the human race can safely burn. The best scientific estimates are that about 80% of known fossil-fuel reserves must remain in the ground to avoid extreme climate change. However, these companies' current valuation is based on the value of *all* the reserves. Observers[8] suspect a significant portion of known reserves will stranded assets that will need to be written down. Once the messy political question of *whose* assets get left in the ground is settled, many fossil fuel companies may suffer a dramatic drop in their value. To keep climate change risks at an acceptable level, these decisions will need to be made by about 2040.

The last year has been a wild ride for fossil fuel stocks, and we have no reason to believe that they will stabilize and glide off to a smooth future. For example, in 2015, the Gates Foundation would have been $1.8 Billion better off if it had divested from fossil fuels[9]; likely the advantage of divestment would have continued into early 2016 as the price of oil drops.

Over the short-term, divestment is safe, in that it would not appreciably change the City's near-term investment risk in Pittsburgh's portfolio. In fact, divestment may be a useful tool to reduce the impact of large and unexpected oil price fluctuations.[10] No one can predict short-term investment futures but a commitment to divest over five years would allow investment managers to responsibly manage the transition. [11]

Further, fossil fuel divestment would be a relatively small change to Pittsburgh's portfolio. Pittsburgh's investments are relatively standard and broadly spread, so fossil fuels likely make up significantly less than 10% of Pittsburgh's investments. Divestment is not — financially speaking — a dramatic action.

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[8] E.g. the Mark Carney, the Chairman of the Bank of England. YouTube video: https://youtu.be/V5c-eqNxeSQ .

[9] http://www.theguardian.com/environment/2015/nov/16/gates-foundation-divested-fossil-fuels-would-be-19bn-better-off

[10] https://www.msci.com/resources/factsheets/MSCI_ESG_Research_FAQ_on_Fossil-Free_Investing.pdf

[11] "While there is no definitive answer, the often-presume assumption of a return penalty is not consistently borne out by research. In fact, results from a wide range of studies on social and environmental screening do not provide a consensus on whether there has been a return penalty or benefit from carbon screening." Aperio. *Building a Carbon-Free Equity Portfolio*. www.aperiogroup.com/resource/138/node/download Clearly, even if such a penalty exists, it is generally too small to notice.

We have shown several reasons why long-term investment in fossil fuel companies may not be prudent.[12] And, pension-fund investing is long-term investing. Let's not leave our retirees with bad investments.[13]

Conclusion

Divestment from fossil fuels — oil, coal, and gas — will protect employees' retirement security while demonstrating clear leadership on climate change. Climate change is perhaps the largest threat confronting our community today. But climate change is also an opportunity: an opportunity to come together, an opportunity to show leadership, and an opportunity to live our values.

Financially, divestment is one way to protect against the financial implications of climate change; it insulates public funds from the risks of the fossil fuel industry.

That's why hundreds of Pittsburghers have come togethers to urge the City to divest: we believe divestment is a responsible choice for our retirees and our futures.

Divestment Opinions

Pittsburghers are paying attention to divestment: more than 500 have signed a petition. Here are a few of the collected comments:

"Climate change and ocean acidification are immediate threats to world security," said Tim Kelly, a Pittsburgher, "My daughter deserves a decent future. Divest now!"

Divestment is "another chance for Pittsburgh to lead the way on an important issue." — John Singleton, a Pittsburgher

"The world is literally at stake." – Ben Case, petition signer

"Let's turn the old 'Smokey City' into a beacon of progress." – George Hughes, Pittsburgher.

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[12] "Analysis of historical data shows that over the past seven years eliminating the fossil fuel sector from a global benchmark index would have actually had a small positive return effect." Impax. Beyond Fossil Fuels: The Investment Case for Fossil Fuel Divestment. http://www.impaxam.com/media-centre/white-papers/beyond-fossil-fuels-investment-case-fossil-fuel-divestment

[13] "Climate change and the fossil fuel industry's current business plan pose a pressing risk to city and state pension funds. . . . They could soon face increased risks and potentially severe losses to their portfolios." HIP Investor. Resilient Portfolios and Fossil-Free Pensions. http://divestinvest.org/wp-content/uploads/2014/01/HIP-Investor-Resilient-Portfolio-Fossil-Free-Pensions.pdf

“Pittsburgh has an opportunity to demonstrate its leadership in moving toward an energy future that is sustainable by divesting from investments in old, polluting sources like oil, gas and coal.” – Diane Arnold, Pittsburgher.

“God always forgives, we men sometimes forgive, nature never forgives.” -- Francis of Rome