Adopted: May 18, 2021

ACADEMIC SENATE of CALIFORNIA POLYTECHNIC STATE UNIVERSITY San Luis Obispo, CA

AS-919-21

RESOLUTION TO DIVEST FROM FOSSIL FUELS

Impact on Existing Policy: None.

1 2 3 4 5	WHEREAS,	The United Nations Intergovernmental Panel on Climate Change (IPCC) has determined that humanity has less than ten years to make urgent and unprecedented changes to our society to cut our carbon emissions by 45% by 2030 to avoid the worst impacts of climate change; and
6 7 8 9	WHEREAS,	The Cal Poly Statement on Diversity seeks to develop awareness and empathy for global communities, including people from historically and societally marginalized and underrepresented groups; and
10 11 12 13 14 15	WHEREAS,	Failure to reduce carbon emissions will result in increased risk of devastating hurricanes, flooding, droughts, fire, pestilence, and food scarcity for hundreds of millions of people, especially for marginalized and underrepresented global populations most vulnerable to the impacts of climate change; and
16 17 18	WHEREAS,	Cal Poly has a moral imperative to take every reasonable action to ensure that 2030 climate goals are met to avoid these consequences; and
19 20 21 22	WHEREAS,	Every major fossil fuel company has either no plan for addressing climate change, or a climate plan grossly inadequate for cutting emissions 45% by 2030; and
23 24 25 26	WHEREAS,	Fossil fuel companies currently pursue business models designed to consume fossil fuel resources, exceed safe carbon emission limits, and cause catastrophic climate change consequences; and
27 28 29 30	WHEREAS,	Cal Poly's endowment and other financial accounts investing in fossil fuels is tantamount to investing in violent and unjust consequences for current and future generations around the world; and
31 32 33	WHEREAS,	Cal Poly's mission statement states that "as an academic community, Cal Poly values social and environmental responsibility"; and
34 35	WHEREAS,	The Cal Poly Foundation's fund managers reported in 2019 that the endowment would have grown by an additional 1% annually, if

36 37 38 39 40		endowment funds had been inv governance) composite investr energy stocks (the worst perfor and	ments "due to	[their] lower allocation to
41 42 43 44 45	WHEREAS,	The long-term risk exposure of consistent with lawful fiduciar according to the Uniform Prudand the Uniform Prudent Investigation	y responsibili lent Managem	ty under U.S. federal law ent of Institutional Funds Act
46 47 48 49 50	RESOLVED,	That the Academic Senate reco Cal Poly Corporation, and all a accounts immediately freeze a and be it further	other universi	ty-affiliated financial
51 52 53 54	RESOLVED,	That the Academic Senate reco funds that include the largest 1 publicly traded companies with	00 coal and th	ne largest 100 oil & gas
55 56 57 58 59	RESOLVED,	That the Academic Senate recoleast 5% of Cal Poly's endow or profitable impact investme as well as financial returns; and	ment into pro	fitable green revolving funds
60 61 62 63 64	RESOLVED,	That the Academic Senate reco provide accessible accountabil such as quarterly investment re community; and be it further	ity for the pro	gress of fossil fuel divestment,
65 66 67 68	RESOLVED,	That the Academic Senate reco CSU Chancellor, and CSU-wic requests be implemented CSU-	de Academic S	Senate that these divestment
			Proposed by: Date:	Academic Senate Sustainability Committee April 20, 2021

Supplemental Materials for the Resolution on Fossil Fuel Divestment

We recognize that investing in fossil fuel companies has made sense in decades past, but now ask you to consider that Cal Poly can best live up to its highest virtues of service to students, faculty, staff, leaders, and members of the global community by shifting our investment approach.

We call on Cal Poly to divest from fossil fuels for two core reasons – moral and financial, each of which stands independently of the other. We break down each of the reasons below, as well as address any lingering concerns that may be causing some hesitation toward divesting.

The announcement of fossil fuel divestment would be an amazing accomplishment for Cal Poly and for the CSU Board of Trustees, shining a bright spotlight on our forward thinking in a pandemic where hope and excitement has been hard to come by.

On a personal note: We realize this is long, but we read far more material and viewed far more resources than those represented here in order to write this document. We do not mean to make more work for our faculty, administrators, and leaders through our request, but of all reasons to adapt our usual capacities, the threat of climate crisis is among the most compelling.

Our ultimate reason for recommending divestment – and taking the time to thoroughly research it, write this, share about it with other students, and build a grassroots campaign around it - is because climate change is really scary, and we deeply want to help other people have a better chance at a happy future.

We are all on the same team - wanting what is best for the Cal Poly and CSU students, faculty, staff, and leaders, and wanting to make our universities proud. We are united by our vision for a better future.

Our students deserve the opportunity to graduate with a future not defined by climate crisis and expect our university to take **every reasonable effort it can help to do its part to avoid it.**

We really hope you take the time to read what we have to share about fossil fuel divestment.

Let's stand together on the right side of history.

Lisa Swartz February 2020

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1. The moral imperative for divesting from fossil fuels

Nobel-prize winning scientists in the United Nations Intergovernmental Panel on Climate Change (IPCC) are very clear that exceeding 1.5°C of warming above pre-industrial level by 2030 would expose our planet to the most calamitous effects of climate change. To be clear, climate change effects are here already – but exceeding this 1.5°C limit unlocks natural feedback cycles that will drastically increase warming and spell out **severe and deadly increases** in:

- Extreme heat and heat-related mortality
- Destructive wildfires, such as those in California in 2020
- Devastating storms spelling disaster for hurricane-prone areas, like many Southern U.S. cities and metropolises on the Northeast seaboard
- Dwindling water resources, that will cause mortality and food shortages and increase global political instability, conflict, and violence
- Larger insect populations leading to higher incidences of diseases like malaria and dengue fever
- Unprecedented sea level rise as high as 48 inches by 2100, spelling out homelessness for millions, including many along California's 800 mi coast, and sparking a global refugee crisis. I

The IPCC projects that the costs of reaching even 2°C, just a half degree higher, include:

- 1.7 billion more people experiencing severe heatwaves at least once every five years
- Seas rising an additional 4 inches
- Up to several hundred million more people becoming exposed to climate-related risks and poverty
- The coral reefs that support marine environments around the world declining as much as 99 percent
- Global fishery catches declining by another 1.5 million tons.²

We do not have much time - As of 2018, global temperatures have already risen 1.0 °C since the pre-industrial era due to human activities. In order to not exceed 1.5°C, we must halve our emissions by 2030 over 2010 levels.³

Our energy sources must change dramatically if we are to avoid these most calamitous of effects. The science to model our "carbon budget" (how much we can burn without exceeding these levels) is ongoing and has been for decades, but the latest report from the IPCC indicates that at least 30% of our global fossil fuel reserves must not be burned, and the number could be as high as 75% (see Figure 1).

IPCC Summary for Policymakers — Global Warming of 1.5 °C

² Why Is 1.5 Degrees the Danger Line for Global Warming?

³ IPCC Summary for Policymakers — Global Warming of 1.5 °C

⁴ The Sky's Limit and the IPCC Report on 1.5 Degrees of Warming

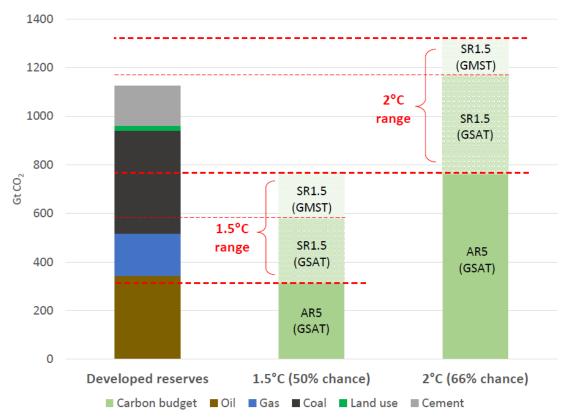


Figure 1: Averting crisis-level climate impacts by not exceed 1.5°C warming requires leaving a significant amount of fossil resources in the ground.

Source: IPCC 5th Assessment Synthesis Report, IPCC Special Report on 1.5

Degrees of Warming, OCI The Sky's Limit report.

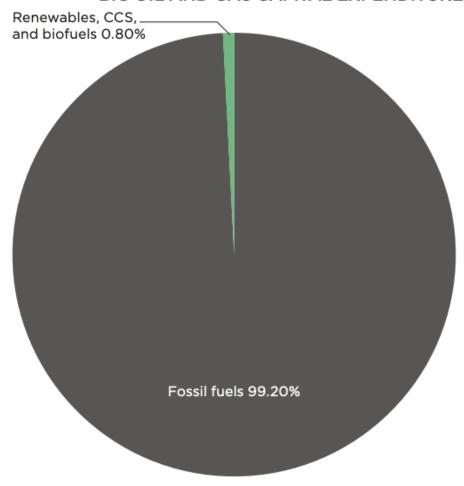
Unfortunately, fossil fuel companies have climate plans that are **grossly inadequate** for reaching this goal, threatening a very real risk of unlocking the calamitous effects above. This is little surprise, considering that they invested less than 1% of capital expenditure in renewable energy in 2019 (Figure 2). For the top eight publicly traded oil and gas companies, there are no commitments to funding worker's transition into new sectors, no intention of halting new exploration and extraction projects, no end date for oil and gas extraction, and for 6 out of the 8, **no intention of even** *declining* **oil and gas production by 2030** (Figure 3).⁵

Fossil fuel "climate plans" are entirely incompatible with reaching this crucial climate goal. If things play out "business-as-usual" according to these plans, **students**, **staff**, **faculty**, **and people and ecosystems worldwide will suffer for it**. We see no way for Cal Poly to morally justify investing in these companies, given the enormous threat that they pose to students, staff, faculty, and people and ecosystems worldwide. We are calling for divestment due to the fact that, sans adequate climate plan, the success of fossil fuel companies is entirely incompatible with a just future.

http://priceofoil.org/2018/10/17/the-skys-limit-ipcc-report-15-degrees-of-warming/

⁵ Discussion Paper: Big Oil Reality Check — Assessing Oil And Gas Climate Plans

BIG OIL AND GAS CAPITAL EXPENDITURE IN 2019



Source: IEA data, adapted from graph by Simon Evans⁴⁵

Figure 2: The top 8 publicly traded oil and gas companies 1% capex spending on renewable energy in 2019 gives little reason to believe that climate change can be averted by oil and gas companies transforming into renewable energy companies.

Source: Oil Change International, data from IEA

BIG OIL REALITY CHECK: ASSESSING THE OIL MAJORS' CLIMATE PLANS

	obp bp	Chevron	eni	equinor	Ex∕onMobil	REPJOL	Shell	TOTAL
Ambition			127- 3				3/	
Stop exploration	Only in new countries	No	No	No	No	No	No	No
Stop approving new extraction projects	No	No	No	No	No	No	No	No
Decline oil and gas production by 2030	<30% drop by 2030	No	Plateau by 2025, decline only for oil	No	No	No	No	No
Set long-term production phase-out plan aligned with 1.5°C	No	No	No	No	No	No	No	No
Integrity								
Set absolute target covering all oil and gas extraction (full equity share)	Absolute; major Scope 3 loophole	No	Yes	Scope 3; intensity target only	No	Scope 3; close to absolute	Scope 3; intensity target only	Scope 3 "net zero" only in Europe
Do not rely on carbon sequestration or offsets	No	No	No	No	No	No	No	No
Be honest about fossil gas as high carbon	No	No	No	No	No	No	No	No
End lobbying and ads that obstruct climate solutions	No	No	No	No	No	No	No	No
Transition Planning	9							
Commit to explicit end date for oil and gas extraction	No	No	No	No	No	No	No	No
Commit plans and funding to support workers' transition into new sectors	No	No	No	No	No	No	No	No

COLOR CODE FOR RATING COMPANY COMMITMENTS AGAINST CRITERIA

Grossly insufficient Insufficient Partial alignment Close to alignment Fully aligned

Read the full discussion paper: priceofoil.org/big-oil-reality-check



Figure 3: The oil majors have all climate plans that overall score as **grossly insufficient** to meet the climate goals necessary to avert disastrous warming effects.

Source: Oil Change International "Big Oil Reality Check"

Furthermore, Cal Poly's mission statement states that "as an academic community, Cal Poly values ... social and environmental responsibility." How can we claim to value environmental sustainability while not only not speaking out against these companies whose very core business threatens our future, but also buying shares of such companies who fully intend to bring our planet past this devastating tipping point?

Additionally, the science is very clear that climate consequences disproportionately impact indigenous people and other vulnerable populations and reveal disparities that occur along race, gender-, and class-based lines, often with those least responsible for causing the problem suffering the worst impacts.⁷ Climate change is one of the greatest threats to justice of our lifetimes. How can Cal Poly claim to value social responsibility when we own shares of companies who choose to disregard that lives that will be lost as a result of their actions?

Fossil fuels are not just deadly for their climate change impacts. A recent Harvard study found that exposure to particulate matter from fossil fuel emissions accounted for 18% of total global deaths - almost one in five - in 2018. A lead author of the study, Ian Hamilton, says that "the message is stark. Not only does delivering on Paris prevent millions dying prematurely each year, the quality of life for millions more will be improved through better health." The researchers estimated that China's decision to cut its fossil fuels emissions nearly in half saved 2.4 million lives worldwide, including 1.5 million lives in China, in 2018. Another study author echoes that "we can't in good conscience continue to rely on fossil fuels, when we know that there are such severe effects on health and viable, cleaner alternatives." How can we in good conscience invest in the future of fossil fuels, when we know that there are such severe health effects and viable, cleaner alternatives?

It is no secret anymore that fuel companies have actively participated in misinformation campaigns to designed deceive the public about climate change. A report authored by an international group of scientists entitled, "America misled: how the fossil fuel industry deliberately misled Americans about climate change," summarizes more than a decade of peer-reviewed research showing that fossil fuel corporations have, for decades, "polluted the information landscape" and funded efforts to deceive people about the dangers of their product. As Dr. Steve Easterbrook of the University of Toronto states: "to put it bluntly, it is hypocritical for a university to claim to be at the forefront of knowledge production while simultaneously investing in companies that knowingly undermine that mission by spreading disinformation." 10

We did not have to be the position we are today – had some of the very companies we now invest in considered the world their grandchildren would inherit and taken morally upright action to lead the world in diversifying our energy supply, we could have started efforts to curb climate change decades ago. The facts that:

⁶ Cal Poly Mission Statement

⁷ IPCC Summary for Policymakers — Global Warming of 1.5 °C

⁸ Deaths from fossil fuel emissions higher than previously thought

⁹ America Misled: How the fossil fuel industry deliberately misled Americans about climate change

¹⁰ Divest Canada Coalition calls for nationwide blanket divestment from fossil fuels at universities

- I. Fossil fuels have created almost three-quarters of human-caused emissions in the past 20 years, 11
- 2. The industry has been aware of the long-term consequences of carbon emissions for nearly 70 years, 12 and
- 3. Fossil fuel companies have responded by actively arranging and funding denial and disinformation to suppress action and protect status quo business operations¹³,

Taken together has led leading climate scientists to conclude that "major investor-owned fossil energy companies carry significant responsibility for climate change" - yet Cal Poly's endowment continues to hold shares in these companies.

Our society and the quality of our lifestyles have benefitted immensely from fossil fuels – but the cost of bringing us face-to-face with a challenge that could bring much the world to its knees.

We buy investments because we hope to see them grow in the future and provide gains to support missions of our university. We wouldn't invest in a company if we didn't think it would bring returns. But to see these companies bring strong returns, especially in 5, 10 years from now, spells catastrophe for our millions, including Cal Poly students graduating into a world consumed by the climate crisis. Cal Poly's interest in the wellbeing of the Cal Poly community is directly incompatible with expecting returns from fossil fuel investments.

¹¹ Department of Energy – Fossil Fuels

¹² Early oil industry knowledge of CO2 and global warming

¹³ Ibid.

¹⁴ The climate responsibilities of industrial carbon producers

2. The financial call to divest from fossil fuels

When universities like Chico State divested from fossil fuels 7 years ago in 2014, with some divesting as early as 2012, there was not yet a compelling financial argument for divestment. That has changed. The research shows that divesting from fossil fuels will not expose our portfolio to losses, and if anything, may save us from losing money on fossil fuel stranded assets.

If Cal Poly has divested from fossil fuels in 2019, our endowment would have saved a significant amount of money amidst the 2020 economic crash. As you can see in the Figure 4, even though the value of the S&P 500 has grown from the beginning of 2020 to the end, stocks in Shell, ExxonMobil, and Chevron have tumbled and have not seen their value return.

Fossil fuel stocks tumble amid a strong overall market

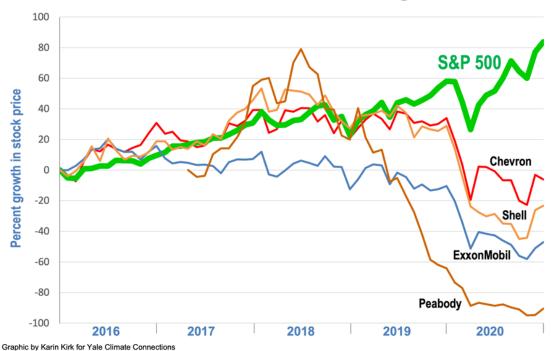


Figure 4: Fossil fuel stocks have been hit much harder than other sectors during 2020, and were **lagging behind the rest of the S&P 500 even before the Covid-19 pandemic**.

Source: Karen Kirk for Yale Climate Connections

But even before unimaginable 2020 crashes, fossil fuels have been proving to be risky investments; in the past 6 years, over 500 U.S. oil and gas producers have filed for bankruptcy, revealing deep debt and sending plummeting returns to the portfolios of investors like us.¹⁵

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¹⁵ Haynes and Boone, LLP Oil Patch Bankruptcy Monitor

Some quick facts:

- The traditional energy industry has been the worst-performing sector on Wall Street for a decade even before the pandemic hit.
- By some measures, Big Oil's downturn, compared to the broader market, was the worst performance of any sector going back to before the Great Depression.
- Shares of ExxonMobil have lost 47% of their value in the past five years Over that same time span the S&P 500 has gained 84%
- These crippling losses once seemed unthinkable for such a titan, but in 2020 alone, the company's market value withered from \$300 billion to \$176 billion.
- The story repeats itself across the oil, gas, and coal industries: BP, Shell, Conoco Philips, and Marathon Oil have all netted double-digit losses in their stock prices since 2016. Chevron remains the best performer with a mere 6% loss over five years. 16

Despite these crippling declines, there is a much more serious financial problem facing those who have shares of fossil fuel companies. Remember how the IPCC indicated that at least 30% of our global fossil fuel reserves must not be burned, and the number could be as high as 75%? Let's take a look at Figure 5 for how much fossil fuel production we can have in the next 10 years to reach those critical IPCC goals:

FIGURE 2: PROJECTED DECLINE OF OIL, GAS, AND COAL EMISSIONS THIS DECADE TO LIMIT WARMING

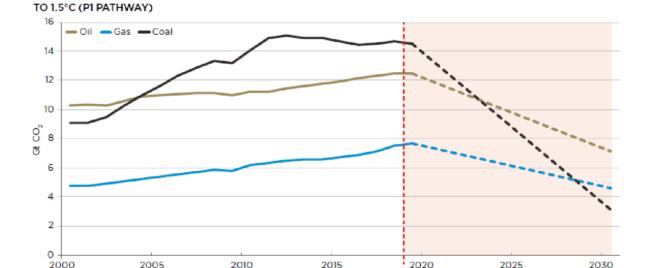


Figure 5: Fossil fuel production must decline rapidly starting now to meet the 1.5°C goal. Source: Oil Change International, Carbon Brief analysis of data from IPCC SR I 5 and Global Carbon Project I 8

Seeing the sharp declines in coal, oil, and gas needed to secure a just future, how can buying shares in fossil fuel companies be justified? The world may never again consume as much gas and oil than in 2019. BP itself reported in 2020 that if the government takes significant steps

2005

Sources: Carbon Brief analysis of data from IPCC SRI5 and Global Carbon Project™

¹⁶ Investors flee Big Oil as portfolios get drilled

to curb climate change, oil demand will not return to pre-pandemic levels.¹⁷ **Peak oil is behind us.**

The heavyweights of the financial world are sounding the alarm on fossil fuel investments. Since large numbers of reserves will not be extracted if climate targets are to be met, fossil fuel assets are currently overvalued, creating a "carbon bubble." Many senior figures and institutions in the financial world, including the World Bank, Bank of England, HSBC, Goldman Sachs and Standard and Poor's, have warned that only a fraction of known fossil fuel reserves can be safely burned and that the remainder could plummet in value, posing huge risks to investors.¹⁸

In 2015, HSBC privately advised its clients to divest from fossil fuels due to the risk, cautioning that investors who fail to get out of fossil fuels "may one day be seen to be late movers, on 'the wrong side of history." HSBC warned that 40-60% of the market capitalization of oil and gas companies was at risk from the carbon bubble. That is a lot of risk for smart, conservative investors like Cal Poly to be taking on.

Devaluation is here, now - in February 2021, Exxon Mobil Corp., Chevron Corp., and ConocoPhillips had their credit ratings lowered by S&P Global Ratings due to forecasts that stricter regulation and shifting demand patterns "will contribute to a more difficult operating environment for fossil fuel producers and will likely augment the risk of stranded assets and significant asset write-downs." S&P also warned of "growing risks from energy transition due to climate change and carbon/GHG emissions, weak industry profitability and greater expected volatility in hydrocarbon fundamentals." If the risks are growing, why would Cal Poly wait a moment longer than necessary to get out of fossil fuels before their business drops even more?

Not to mention that the United States' new presidential administration is very serious about meeting the Paris Agreement goals and "lead[ing] an effort to get every major country to ramp up the ambition of their domestic climate targets." This commitment spells out an ever more challenging regulatory environment for fossil fuel companies to profit within.

Investing in an industry marked by past and projected decline is fiscally irresponsible and threatens our finances. The fiduciary duty under U.S. federal law according to the Uniform Prudent Management of Institutional Funds Act and the Uniform Prudent Investor Act includes appropriately managing risk exposures to the fund,²² meaning that Cal Poly has a legal obligation is manage risks in our endowment and other accounts such as these.

¹⁷ BP says oil demand may have peaked last year

¹⁸ Carbon bubble will plunge the world into another financial crisis – report

¹⁹ HSBC Warns Clients of Fossil Fuel Investment Risks

²⁰ US Oil Majors Downgraded by S&P on Climate Risk, Earnings

²¹ Plan for Climate Change and Environmental Justice | Joe Biden

²² Fiduciary Duty Overview for Endowments and Foundations: Integrating Nonprofit Mission Goals into Investment Practices

The long-term risk exposure of investing in fossil fuels are no longer consistent with lawful fiduciary responsibility.

Especially when alternatives abound.

The market for fossil fuels is seriously threatened by the blistering rise of cheap renewable alternatives. Some more facts to consider:

- The price of onshore wind energy has dropped from \$135 per MWh down to \$40 in 10 years, a reduction of more than 70%
- Utility-scale photovoltaic solar has made up even more ground, with a nearly 90% price reduction since 2009
- Solar is now the cheapest form of electricity over its lifespan, with an average unsubsidized cost of \$37 per MWh
- While ExxonMobil lost 41% of its overall market value in 2020, the renewable leader NextEra gained 29%
- From 2017-2019, the S&P Clean Energy Index outperformed its coal, oil, and gas counterpart, the S&P Natural Resources Index at a ratio of 6:1, returning more than 66% over 3 years vs. only 11%.²³

Fossil fuels used to be a safe, dependable investment, but that is no longer the case. A 2019 report shows state workers in California and Colorado lost a combined \$19 billion in retirement funds over 10 years by remaining invested in fossil fuel assets. For California public school teachers, losses amounted to over \$5,000 per person.²⁴

As a university at the forefront of so many fields, we do not need to use outdated, worn-out investment strategies, especially when there is mounting evidence challenging these strategies. Cal Poly stays on the cutting edge, and we do away with old strategies when we see they no longer serve us. That time is now for investing in fossil fuels.

The chief investment officers for the University of California, Jagdeep Singh Bachher and Richard Sherman, agree: "We believe hanging on to fossil fuel assets is a financial risk," they said, and that they pose "a long-term risk to generating strong returns for UC's diversified portfolios." How could investing in fossil fuels be worth the risk to our portfolio? And to what gain? Handing ourselves, our children, and our grandchildren a climate crisis of historic scale? Investing in fossil fuels does not make sense.

²³ The Case for Pivoting into Renewable Energy

New Study Shows Oil, Coal and Gas Investments Drove Over \$19 Billion in Losses for Major Pension Funds

²⁵ Opinion: UC investments are going fossil free. But not exactly for the reasons you may think

Please see each of these five studies and reviews for additional confirmation that divestment does not hurt a university's endowment returns:

1. Auke Plantinga, Bert Scholtens, <u>The financial impact of fossil fuel divestment</u> (2020) Climate Policy, 21:1, 107-119.

"The investment performance of portfolios that exclude fossil fuel production companies **does not significantly differ** in terms of risk and return from unrestricted portfolios"

2. Arjan Trinks, Bert Scholtens, Machiel Mulder, Lammertjan Dam, <u>Fossil Fuel Divestment and Portfolio Performance</u>, Ecological Economics, Volume 146, 2018, Pages 740-748.

"Fossil fuel divestment would not have reduced performance over 1927-2016."

3. Dennis Halcoussis, Anton D. Lowenberg, <u>The effects of the fossil fuel divestment campaign on stock returns</u>, The North American Journal of Economics and Finance, Volume 47, 2019, Pages 669-674.

"Over various sample periods ranging from January 4, 2010 to June 29, 2018, the **low-carbon portfolio typically earns a slightly higher rate of return than the overall market**, due to the poor performance of the fossil fuel industry"

Ryan, Christopher and Marsicano, Christopher, <u>Examining the Impact of Divestment from Fossil Fuels on University Endowments</u> (January 27, 2020). New York University Journal of Law and Business, Vol. 17, 95-152 (2020)., Roger Williams Univ. Legal Studies Paper No. 195.

"Results from our difference-in-differences analyses of the effect of full and partial divestment suggest that **either form of divestment does not yield discernible consequences**—either positive or negative—for endowment values, at statistically significant levels"

"However, we do find evidence that **divestment improved the value for three of four universities** that we examined through synthetic control analysis"

Tom Sanzillo, Kathy Hipple, Clark Williams-Derry, <u>The Financial Case for Fossil Fuel Divestment</u>, Institute for Energy Economics and Financial Analysis, July 2018

"Objections to the Divestment Thesis Rely Upon a Series of Assumptions Unrelated to Actual Fossil Fuel Investment Performance"

"The financial case for fossil fuel divestment is strong. Over the past three and five years, respectively, global stock indexes without fossil fuel holdings have outperformed otherwise identical indexes that include fossil fuel companies" "Fossil fuel companies once led the economy and world stock markets. They now lag"

3. How and Why Reinvest?

This section is short and simple. According to the National Academies of Sciences, Engineering, and Medicine, in their 2021 report assessing the technological, policy, and social dimensions needed achieve the deep net-zero-by-2050 decarbonization of the U.S. economy, "roughly \$2 trillion in incremental capital investments must be mobilized over the next decade for projects that come online in 2030 to put the United States on track to net zero by 2050." The government shoulders the responsibility for making a significant amount of this investment, but:

- I. By investing ourselves in climate solutions, Cal Poly can set a distinguished example of our commitment to a just future for governments to follow.
- 2. There is an enormous opportunity to make money from investments in green revolving funds (GRFs) and impact investments.

Climate change will not be solved by divestment alone – it is an enormous task requiring policy, cooperation, innovation, across all sectors of the economy. Cal Poly, already a global leader in many fields, can be a climate leader by showing the world that our endowment can work two jobs – providing for the success of students and our learning and research institution, *and* fight for the healthy world we all want to see. Our research has uncovered two excellent investment categories for doing so: Green revolving funds, and impact investments.

Green Revolving Funds (GRFs):

Green revolving funds (GRFs) invest in energy efficiency upgrades and projects that decrease resource use, thereby lowering operating expenses. These operational savings are returned to the fund and then reinvested in additional projects. A major trend among universities divesting from fossil fuels is shifting university resources toward implementing Climate Action Plans. GRFs are an opportunity for universities to transform energy efficiency upgrades from perceived expenses to high-return investment opportunities.

"The attractiveness of GRFs as investment options is based on the track records of existing GRFs. Conservative estimates show that a green revolving fund can consistently earn a 20+ % annual return on investment yielding a median annual ROI of 32 % —with no losses— for 52 existing green revolving funds." That is a much higher return than the 7-12% typical for endowment investments. It's a little-known fact that the return on investment from programs that reduce greenhouse gas emissions have a far higher rate of return than almost any investment in corporations.

²⁶ Accelerating Decarbonization of the U.S. Energy System

²⁷ Greening The Bottom Line

²⁸ The Billion Dollar Green Challenge

For example, the Caltech Energy Conservation Investment Program (CECIP) was initiated in 2009. It manages \$8 million within an existing fund in the school's endowment, which had been created to finance capital projects. Any member of the Caltech community may submit a project proposal, and projects are approved as long as they have a 15 percent return on investment or a simple payback period of less than six years. CECIP has financed 13 large-scale building projects, ranging from lighting replacements to complete mechanical and control system retrofits. As of August 2010, these projects have reduced the school's energy bills by \$1.5 million. They have achieved an average return on investment of 33 percent and an average payback period of three years.²⁹

<u>The Sustainable Endowments Institute report, Greening The Bottom Line</u> is an excellent resource and provides a comprehensive survey of GRFs at over 50 American and Canadian colleges and universities.

Impact Investing:

Impact investments are investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return. Impact investing challenges the long-held views that social and environmental issues should be addressed only by philanthropic donations.³⁰ Investments can be made across asset classes. A survey from Global Impact Investor Network found 59% of impact investors sought risk adjusted rates of returns, with 16% targeting below market rate. 89% of respondents reported the financial performance was in line or outperforming relative to expectations.³¹

*Final note: we recognize that buying public equity in companies that help fight climate change, such as large solar energy companies, does not directly translate into results such as more solar panels. GRFs and impact investments have a direct positive impact, which is why we urge reinvestment in these forms.

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²⁹ Greening The Bottom Line

What you need to know about impact investing

³¹ Ibid.

4. Responses to Possible Hesitations Towards Divestment:

1. "But the top oil and gas companies are shooting for net-zero emissions!"

Some oil and gas companies have released climate plans calling for net-zero emissions; unfortunately, almost every single one aims to be net-zero by 2050, with no goals for 2030.³² To avoid rise of 1.5 °C, the next 9 years are most important. If fossil fuel pollution continues to rise this decade, we could reach net zero by 2050 but still blow far past 1.5°C.³³

Additionally, despite claiming to support climate policy, companies like ExxonMobil also remain members of associations and organizations that lobby to obstruct climate solutions.

2. "But natural gas is a bridge fuel!"

Not if we want to reach the I.5°C goal of the Paris accord and prevent calamitous climate change effects. This excellent report breaks down how natural gas will break the carbon budget, is not essential for electric grid reliability as once thought and is increasingly beat out on cost effectiveness by wind and solar.

Additionally, since gas infrastructure with billion-dollar price tags are built to operate for decades, and there are serious barriers to closing infrastructure earlier than its expected lifespan, it is critical to cease new oil or gas infrastructure, like pipelines, to meet the 1.5 °C goal.

Additionally, Mark Jacobson of Stanford University and colleagues have developed detailed roadmaps for how 139 countries could achieve 80% renewable energy by 2030, and 100% by 2050,³⁴ as shown in Figure 6.

³² Path to net zero: Climate change takes center stage at more US oil companies

³³ ExxonMobil's climate plans are still "grossly insufficient"

³⁴ The Sky's Limit: Why the Paris Climate Goals require a managed decline of fossil fuel production

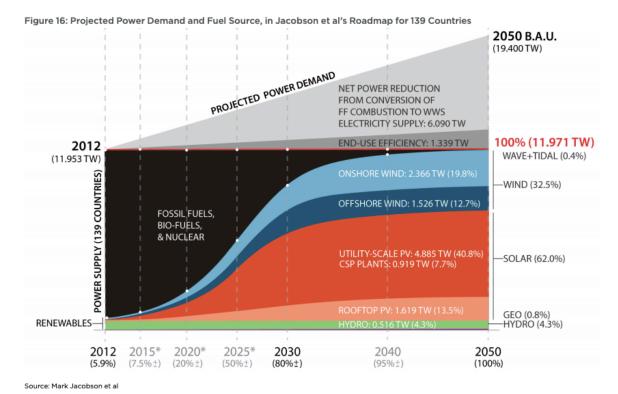


Figure 6: It is possible for 139 countries, including the United States, to use fossils fuels for only 20% of our power needs in 2030. Source: Oil Change International, The Sky's Limit.

3. "But divesting does nothing to harm fossil fuel companies – our stocks go back into the marketplace, where they are bought by others at a slightly lower price"

This is a multi-part answer:

- a. Why don't we ask the companies themselves? In 2017 Shell's Annual Report states that "some groups are pressuring certain investors to divest their investments in fossil fuel companies. If this were to continue, it could have a material adverse effect on the price of our securities and our ability to access equity capital markets." This is quite fitting considering that Shell's business has a material adverse effect on the planet.
- b. According to current and former coal industry executives, the rise of fossil free investing has become big enough that it is indeed "constricting the industry's ability to obtain capital." David Stetson, CEO of Contura Energy, a major coal producer, admits that "If they can cut off your financing, they cut off your ability to function as a company." Oil companies need enormous loans to find, purchase,

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³⁵ Strategic Report

³⁶ Elliott, R., & Randles, J. (2020, Sep 17). Market forces thwart trump coal revival --- falling demand, cheaper alternatives mean industry continues its long-term skid. *Wall Street Journal*

- and exploit reserves. The terms and the availability of these loans are related to the value of the company.
- c. This is excellent news, because fossil fuel companies must be prevented from building new fossil-fuel infrastructure. The earlier-cited 2021 report by the National Academies of Science, Engineering, and Medicine, states that "analyses of model pathways to net-zero emissions in 2050 agree that in the next 10 years, the United States must build no new long-lived fossil fuel infrastructure (such as pipelines) that cannot be repurposed for use in a net-zero economy, and instead build network infrastructure to enable net-zero energy transition." By lowering the actual and perceived value of the companies and thus limiting access to credit, divestment limits the ability of fossil fuel companies to expand their infrastructure and extraction.
- d. Additionally, oil and gas executives are under enormous pressure to keep the stock price high. By publicly announcing our divestment due to reasons of financial risk, we make others less likely to invest, and less likely to scoop up shares we sell. This puts other shareholders at risk; The members of the Board of Directors representing company shareholders start taking climate change and our futures much more seriously when their own money is at stake.
- e. Even still, the real power of Cal Poly and CSU divesting from fossil fuels is stigmatization. According to an Oxford University report, "the outcome of the stigmatization process, which the fossil fuel divestment campaign has now triggered, poses the most far-reaching threat to fossil fuel companies and the vast energy value chain." Stigmatization severely affects the historically high political influence that these fossil fuel companies have enjoyed, since governments and politicians prefer to engage with 'clean' firms to prevent adverse spillovers that could taint their reputation or jeopardize their reelection. Additionally, stigmatized companies may be barred from competing for public tenders, acquiring licenses or property rights for business expansion, be weakened in negotiations with suppliers, or experience cancellation of multibillion-dollar contracts or mergers/acquisitions.
- f. Meeting our most important climate goals involves deep change across many sectors and is not possible without climate-forward policies in place. By increasing awareness, divestment helps elevate policies that we as a planet depend on. For example, prominent divestments from tobacco and the subsequent awareness of the health risks of smoking led to several rounds of restrictive legislation beginning with the 1969 Public Health Cigarette Smoking

³⁸ Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?

³⁷ Accelerating Decarbonization of the U.S. Energy System

Act and progressing to state-led litigation.³⁹ **Prior to the tobacco divestment campaign, there were no government anti-smoking campaigns**. "Calls for divestment of tobacco stocks have served as prominent banners... Such banners have rallied the faithful to successful political actions. The political actions of tobacco foes resulted in taxes and settlements in the many billions." – Dr. Meir Statman, Santa Clara University.⁴⁰ The South African divestment campaign famously led the U.S. to boycott South Africa over apartheid, and Nelson Mandela agreed the nationwide divestment campaign was a "catalyst" to ending the unjust system.⁴¹ **Divestment is not an insignificant act.**

4. "But we need our portfolios to be diversified as part of our fiduciary duty"

As of January 2021, the *entire* energy sector of the S&P 500, which includes renewable energies, makes up *less than 3%* of the value of the S&P 500.⁴² We can be adequately diversified without fossil fuels.

5. "We can have more of an impact with shareholder engagement"

Between 2012 and 2018, 160 climate change shareholder resolutions were filed at 24 U.S. oil & gas companies. These resolutions resulted in a range of successes—from appointing climate-competent board members to reducing some operational greenhouse gas emissions. **Despite these resolutions, none of these U.S. oil & gas companies adopted adequate plans, or targets, to limit their carbon emissions.** As of 2018, the vast majority of these companies were continuing business-as-usual activities to maintain or expand production.⁴³

Investor engagement passes the responsibility of climate action onto these corporations who have already perpetrated decades-long misinformation campaigns that continue to conceal real, everyday dangers of a warming planet.

Shareholder engagement is unlikely to persuade a company to commit to eventually putting itself out of business. Implying that fossil fuel companies can be made sustainable enough to meet aggressive climate goals is like saying tobacco can be made healthy — it's not in the books. Remember that the top oil and gas corporations only spent one percent on clean energy in 2018, and even if that number ratchets up significantly, it is simply not enough to meet the goals needed to avert the deadliest impacts of the climate crisis. To mitigate the effects of climate change, it is more strategic to invest directly in solutions than to engage in the slow, incremental process of filing shareholder resolutions to reform the fossil fuel industry. Advocating

40 Ibid.

³⁹ Ibid.

⁴¹ South African Apartheid

⁴² S&P 500 Sector Representation

^{43 2020:} A Clear Vision For Paris Compliant Shareholder Engagement

piecemeal or gradual change does not challenge the fundamental business plan of corporations that profit off planetary wreckage.

Besides, shareholder engagement does not reduce our endowment's exposure to financial risk from write-downs and lowered share prices the way divestment does.

6. "But carbon-capture can save fossil fuels"

Unfortunately, The Department of Energy recently estimated that initial costs for carbon capture at natural gas plants would increase the cost of power by about 50%. Studies show it cannot be applied at great enough scale to justify the costs, and it would only slow down the transition to renewables.⁴⁴

Carbon capture may have an important role in heavy industries that offer few low-carbon options, such as fertilizer producers, chemical producers, steel and iron mills, and cement makers.⁴⁵ But for a huge portion of the oil and gas needed to power our lives, renewable solutions are cheaper, and far more effective at averting the worst impacts of climate crisis.

After a \$7.5 billion carbon-capture power plant in Mississippi was never able to come online, ⁴⁶ the U.S. had only one power plant with carbon capture and storage (CCS) – and it shut down in January 2021 due to the low price of oil, marking "what may be one of the last gasps for carbon capture and storage technology in the U.S." Additionally, the CCS technology at this plant, Petra Nova, required so much energy that the company made an entirely separate natural gas power plant - the emissions of which were not offset by the Petra Nova technology - just to power the scrubber. ⁴⁷

7. Fear of a slippery slope

The fear of a slippery slope can be used to counter any call for action in any area; it is not a valid argument unless there is evidence to show that taking one action will inevitably lead to another with costs that outweigh the benefits of the first action. There is no evidence that fossil fuel divestment will inevitably lead to actions like banning fossil fuel companies from coming to the career fair, considering that decisions like that must be approved by the Cal Poly President and administration. Furthermore, we acknowledge that fossil fuel companies are needed in the U.S. energy landscape, that employers of all kinds seek our talented students, and that students have the right to choose their employer. Allowing fossil fuel companies at our career fairs is much different than buying shares in those companies and linking their financial success to our own.

^{44 &}lt;u>Carbon Capture Opportunities for Natural Gas Fired Power Systems</u>

⁴⁵ Transforming Industry through CCUS

⁴⁶ Two Years Since Kemper Clean Coal Project Ended

⁴⁷ The Only Carbon Capture Plant in The U.S. Just Closed

8. "Divesting is a political decision, and we don't make political statements"

The definition of "political" is "of or relating to government." We are calling for divestment due to the fact that the success of fossil fuel companies is incompatible with a just future, and due to the financial sensibility of doing so. Neither of these core reasons have anything to do with government or politics. Individuals across all shades of the political spectrum are increasingly understanding and responding to the threats of climate change. The need for a livable climate is not political.

9. "Cal Poly donors may not approve of this decision, and we don't want to affect donations"

"As an academic community, Cal Poly values ... social and environmental responsibility." – Cal Poly Mission Statement

Ultimately, we recognize that investment in fossil fuel companies, sans adequate climate plans, is unfortunately tantamount to investment in violent and unjust consequences for current and future generations around the world, and thus investing in them violates our mission to act in accordance with our values of social and environmental responsibility. We hope all of our potential donors would also want to see that our adherence to our mission statement, not letting the promise of donations lead us away from our core purpose as an institution of higher learning dedicated to our values.

10. "Won't it be hypocritical to divest while we still use fossil fuels?"

If Cal Poly is to do its due part in aligning our emissions with the limits of the Paris climate accord, then we will eventually severely cut our fossil fuel usage. Both divestment and cutting our usage are necessary in our eyes and the eyes of many others – they are not exclusionary. It is nearly impossible not to use fossil fuels in San Luis Obispo in 2021. But we do not invest for 2021 – we invest for 2031. There is nothing hypocritical in unavoidably using fossil fuels while choosing not to invest in their continued dominance.

11. "Fossil fuel workers will be hurt by divesting"

We advocate for a just transition, meaning that working-class people never get left behind. If fossil fuel companies will not retrain and transition their employees for new jobs in the energy sector, as they do not appear willing to do, for a transition that is not these workers fault, then that responsibility falls upon the government. Furthermore, jobs in the fossil fuel industry are extremely dangerous. Oil rig workers and coal miners are at risk for a litany of illnesses and injuries, like the epidemic of Black Lung. Additionally, the death rate among those who work in the drilling industry in 2014, was almost five times that of all other industries combined. Renewable energy and other low-carbon industries (like child and elder care) offer safer job opportunities.

Lastly, extraction jobs are declining due to mechanization. In 1980, producing 100 tons of coal per hour required **52 miners**; by 2015 that number dropped to 16. Even though more coal was being mined, coal mining lost **58 percent of its jobs** between 1980 and 2015.⁴⁹ As technology advances, extraction workers will continue to be displaced regardless of other market influences.

12. "(Lastly) It is technically too difficult to disentangle fossil fuel investments from out hedge funds, due to mutual funds, index funds, etc. And we do not have the resources to decide how/where to reinvest"

It is **always** possible to invest in fossil-free funds. Over 1400 institutions have committed to full or partial fossil fuel divestment, including over 200 other educational institutions like ours. In this list are notable names with endowments much larger than ours: Oxford, Brown, Cornell, George Washington, Boston University, the universities of Hawaii, Illinois, Vermont, and over half of the universities in the UK, and many others. The University of California finished divesting last year; perhaps we could ask them.

If our fund managers are unwilling to divest, there are *many* investment firms who specialize in socially responsible investing that would be happy to take the reins.

Examples include:

- Natural Investments LLC
- o Trillium Asset Management
- o Boston Common Asset Management
- Boston Trust & Investment Management Company
- o Impax Asset Management
- o Hemes Investment Holding, Inc.
- Calvert Asset Management
- Pax World Portfolio 21 Investments
- New Alternative Fund
- o Clean Yield

Many resources are available as guides to divestment and reinvestment even to lay-people like myself for free online. Please see a sampling below:

⁴⁸ Just How Dangerous Is Oil Field Work?

⁴⁹ Increased automation guarantees a bleak outlook for Trump's promises to coal miners

- Fossil Free Funds A screening tool to search any of thousands of mutual fund or ETFs and find its exposure to fossil fuels, as well as easily find funds that have been negatively screened for fossil fuels companies already
- 2) How To Divest Invest A Guide for Institutional Investors A comprehensive guide that provides the practical information for decision makers on how to integrate a "DivestInvest" strategy with the mission and asset allocation strategies of a fund. It includes case studies, implementation steps, and a break-down of the asset classes of climate solutions available to integrate into our portfolio, including:
 - Active Equity
 - Passive Equity
 - Fixed income
 - Real estate
 - Private equity

- Infrastructure
- Direct investment in renewable energy assets
- Infrastructure funds
- · Impact investing
- 3) Maximizing Returns to Colleges & Communities: A Handbook on Community Investment This handbook provides an overview of community investment, including a step-by-step guide to implementing a community investment program that maximizes both financial and social returns. The benefits of community investment are numerous.
- 4) Intentional Endowments Network IEN is a non-profit, peer-learning network advancing intentionally designed endowments those that seek to enhance financial performance by making investments that advance an equitable, low carbon, and regenerative economy. IEN provides resources such as "Roadmap for Endowments," "What Are Other Endowments Doing?," "State of the Field," "Financial Performance," "General Sustainable Investing," "Fiduciary Duty," etc.
- 5) The Clean 200 2021 A ranking of the largest publicly listed companies by their total clean energy revenues, with a few additional screens to help ensure the companies are building the infrastructure and services needed for what Lester Brown and many others have called "The Great Energy Transition" in a just and equitable way.

5. My Open Letter Calling for Divestment

Dear:

President Dr. Jeffery D. Armstrong, Cal Poly Academic Senate, Cal Poly Foundation Board, CSU Campus Presidents, CSU Campus Foundation Boards, CSU Chancellor Dr. Joseph Castro, CSU Board of Trustees, CSU Academic Senate,

My name is Lisa Swartz from Cal Poly San Luis Obispo. I am in a new coalition calling for the Board of Trustees and Chancellor Castro to be climate leaders and pragmatic decision-makers by mandating that every campus endowment <u>divest from fossil fuels</u> and *reinvest* in more promising opportunities in climate solutions.

We believe this decision will benefit our financial portfolio AND directly impact the wellbeing of its past, current, and future graduating classes, who deserve the opportunity to graduate with a future not defined by climate crisis.

The CSU and Cal Poly will not be lonely: the support for fossil fuel divestment internationally has been staggering. The divestment movement is a rising wave encompassing hundreds of institutions: banks, philanthropies, religious organizations, corporations, pension funds, cities, and states to the tune of over \$14 trillion divested so far. Norway's Government Pension Fund — the world's largest sovereign wealth fund – has sold off \$13 billion in fossil fuel investments. BlackRock, the world's largest fund manager, has pulled entirely out of coal. The country of Ireland is withdrawing every last euro invested in fossil fuels. The list of divestors goes on and on.

We will join almost 200 other educational institutions who have divested already, including over half of the universities in the UK, as well as Brown, Cornell, George Washington, Boston University, the universities of Hawaii, Illinois, Vermont, and many others, not to mention our other flagship university system, the University of California. Notably, the UCs cited financial risk, not climate change, as sufficient rationale for divesting. Fossil fuels "posed a long-term risk to generating strong returns for UC's diversified portfolios." The UC's portfolio is already reaping financial rewards.

Even before unimaginable 2020 crashes, fossil fuels have been proving to be risky investments. In the past 6 years, over 500 U.S. oil and gas producers have filed for bankruptcy, revealing debt racking up to hundreds of billions of dollars and sending

plummeting returns to the portfolios of investors like us. Where is the risk-return? Investing in an industry marked by such volatility and short-sightedness is fiscally irresponsible, and our university can do better for the sake of our students.

Cities, states, countries, and institutions are reckoning with the gravity of the threats posed to our health, safety, and happiness by the climate crisis, and agreeing that is it **morally wrong** to continue business as usual greenhouse gas emission. But if it is wrong to destroy a healthy climate, it is also wrong to *profit* from that destruction. But are we even profiting?

Study after study has shown that fossil fuel divestment does not universities' endowment returns. While the fossil fuel industry dances to the drumbeat of bankruptcy, renewable energy production and cost-effectiveness rises year after year, as well as its investment value. In most countries, renewable energy is cheaper than coal. Clean energy bought by corporations jumped 44% in 2019 (Forbes). In the stock market, the S&P Clean Energy Index is outperforming its dirtier counterpart, the S&P Natural Resources Index at a ratio of 6:1, returning more than 66% over 3 years vs. a measly 11% (Forbes). The renewable revolution has been called the "largest wealth-generating opportunity of this generation." How can we let this opportunity fall to the wayside?

After all, this is today. What about tomorrow? Hundreds of cities and regions worldwide, including California, have committed to eventually sourcing 100% of the city's electricity from renewable sources. *No* fossil fuels. The phase-outs we see now are only the beginning.

Yet, despite the enormous progress renewables have made over the past decade, investments in clean energy are still falling short of the level needed to put the world's energy system on a sustainable path. Our action is needed. This is where the CSU can *lead* our nation as the U.S.'s largest university system and send a clear message to the fossil fuel industry and to investors worldwide: we prioritize our future **and** protect our portfolio.

We are at a tipping point. Climate change poses an "immediate and far-reaching threat to people and communities around the world and has implications for the full enjoyment of human rights." We can choose to say *no* to a future marked by collapsing food systems, extreme heat, destructive wildfires, devastating storms, dwindling water resources, sweeping extinctions, increased insect outbreaks, and sea level rise measured in feet.

But the longer we wait, the more drastic reductions are needed to mitigate climate change. Our future can't afford business as usual, and neither can our endowments.

We can put our money where our mouth is. We can leave a legacy our children will be proud of. What we cannot risk is placing bets on a plummeting industry, especially as the CSU faces severe budget constraints as a result of the COVID-19 pandemic.

The announcement of fossil fuel divestment will be an amazing accomplishment for the Cal Poly and for the CSU Board of Trustees, shining a bright spotlight on our forward thinking in a pandemic where hope and excitement has been hard to come by. But fossil fuel divestment is an achievement worth calling home about.

I try to remind myself every day that I work on this of why I'm doing it - to help other people have a better chance at a happy future. We are all on the same team - wanting what is best for the Cal Poly and CSU students, faculty, staff, and leaders, and wanting to make our universities proud. Let's stand together on the right side of history.

To this end, for the good of our students and our nation, and to preserve the quality of life for this and future generations worldwide, we recommend and request that Cal Poly's endowment:

- 1) Immediately freeze any new investment in fossil fuel companies (coal, tar sands, oil, and natural gas.)
- 2) Divest from the top 100 coal and the top 100 publicly traded oil & gas companies within 5 years.
- 3) Reinvest at least 5% of the endowment into climate solutions, including but not limited to active equity, passive equity, real assets, community investment, or revolving loan funds.
- 4) Provide accountability <u>for</u> the progress of fossil fuel divestment, such as quarterly updates and investment reports available to students.

We also recommend and request that the CSU Board of Trustees similarly mandate all three divestment conditions for all 23 campus endowments.

We are united by our vision for a better future. A college degree is an investment with benefits that lasts a lifetime. If only our universities' investments were doing the same.

Thank you.

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