# Divestment and the City

How eight global cities have reacted to the fossil fuel divestment movement and how the City of Toronto could implement a divestment decision



Bruce Cinnamon Daniel Sánchez Casillas



# **Table of Contents**

#### (1) Executive Summary

#### (2) Introduction to Divestment

- (a) How to define divestment
- (b) Historical overview of the fossil fuel divestment movement
- (c) Apartheid as a model of divestment movements
- (d) Divestment and ESG screening
  - ESG as an Alternative to Divestment
  - ESG as a Complement to Divestment
- (e) Litigation and the divestment movement
- (f) Measuring impacts of divestment
  - Core goals of the divestment movement
  - Has the movement achieved its core goals?
  - Is it possible to measure impacts of divestment?
  - Financial impacts
  - Environmental impacts
  - Economic impacts
  - Social impacts

#### (3) Divestment in Eight Global Cities

- (a) Overview of our research
  - Our methodology
  - General trends
  - Summary of findings
- (b) Cities divesting their Pension Funds
  - New York
  - London
  - Oslo
  - Washington, D.C.
- (c) Cities divesting their Directly Controlled Investments
  - Sydney
  - Melbourne
  - Seattle
  - Vancouver

#### (4) Divestment and Toronto

- (a) Toronto's investments
  - Investment structures
  - Toronto's New Investment Policy (2018)
  - Fossil fuel exposure
- (b) Applying conclusions from research to the City of Toronto
- (5) Conclusion
- (6) Notes

# (1) Executive summary

Over the past seven years, the fossil fuel divestment movement has grown from a small group of activists at an American college to a global network claiming to have inspired institutions worth USD \$6 trillion to divest. Amongst the hundreds of institutions that have announced divestment commitments, dozens of cities have pledged to rid themselves of any investment in 200 major fossil fuel companies.

As the City of Toronto implements its new investment policy—which will allow an Investment Board to invest in equities for the first time—there has been some interest by council and by staff to learn more about the divestment movement and how cities like Toronto have reacted it. Specifically, we were tasked with answering three questions:

- 1) What is the current status of the global fossil fuel divestment movement, particularly in the public sector?
- 2) What is the process by which public sector municipalities have assessed their exposure, chosen to divest, and implemented this decision?
- 3) What has been the impact of divestment—financial, environmental, and economic?

Over the course of three months, we conducted research into the divestment movement and its relationship with cities. Most of our work involved desktop research, which included reviewing the (unfortunately sparse) academic literature on fossil fuel divestment and sifting through hundreds of articles in newspapers and magazines. We also conducted interviews with municipalities around the world and with divestment campaigners.

Our key findings are that city governments have reacted to divestment differently depending on the funds that they have pledged to divest. There are generally two kinds of investment structures of interest to cities: pension funds, which are often controlled by arm's-length boards of trustees, and directly controlled investments, where cities place short-term investments to generate additional revenues. Cities that have opted to divest their pension funds have pursued a targeted and incremental divestment approach—that is, they have taken several years to rid themselves of specific assets from specific companies. Cities that have focused on divesting their directly controlled investments have not actually divested any funds, but have implemented exclusion policies—that is, they have created ESG screening criteria that prevent them from acquiring any fossil fuel-related assets in the future. In both cases, divestment has been overhyped and misrepresented by media accounts of full divestment.

Should the City of Toronto choose to make a divestment commitment, we recommend that the new Investment Board should follow the ESG model established by the second group of cities. This would involve adding explicit anti-fossil fuel language to the City's investment policy, screening all new assets using a clear and transparent scorecard, and making annual divestment/exclusion decisions based on a firm's performance on this scale.



# (2) Introduction to Divestment

## (a) How to define divestment

The global divestment movement is set on the moral principle that "if it's wrong to wreck the climate, it's wrong to profit from that wreckage."<sup>1</sup> Divestment is broadly defined as the action or process of selling off subsidiary business interests or investments.<sup>2</sup> However, the movement goes beyond this moral imperative to touch upon economic and financial arguments as well, such as the growing risk for stranded assets. The general idea is to stop capital from going to the fossil fuel companies that are releasing the biggest amounts of CO<sub>2</sub> into the atmosphere. Instead of buying stocks, bonds, investment funds, or any other assets related to the fossil fuel industry, now is the time for institutional investors, including pension funds, to reconsider the material risks and the sustainability of their investments. This gives rise to the potential of reinvesting that money in renewable energy projects and accelerating the transition away from a carbon-intensive economy.

The divestment campaign also aims to end fossil fuel sponsorship. One of the main objectives of 350.org and its affiliate gofossilfree.org is to end fossil fuel companies' sponsorship relationships that helps them create a "social licence to operate." This will be paramount to mitigate the risks associated with global warming. It is very important in a Canadian context—as illustrated by a report published by the Canadian Centre for Policy Alternatives, which concluded that "Canadian pension funds are exposed to climate policy risk from their holdings of fossil fuels."<sup>3</sup>

With 350.org as the main organization providing support to the multiple campaigns and campaigners working towards divestment, the majority of campaigns around the world are asking institutions to:

- Immediately freeze any new investment in fossil fuel companies;
- Divest from direct ownership and any commingled funds that include fossil fuel public equities and corporate bonds within 5 years; and
- End their fossil fuels sponsorship.4

Many of the cities, universities, religious organizations, retirements funds, and other institutions use *The Carbon Underground: The World's Top 200 Companies, Ranked by the Carbon Content of their Fossil Fuel Reserves*<sup>5</sup> as a basis point to avoid fossil fuel investments. Among the different types of divestment, as defined by 350. org, we can find:

**"Fossil Free"** is an institution that does not have any investments in fossil fuel companies (coal, oil, natural gas) and that has committed to avoid any fossil fuel investments in the future.

**"Full Divestment"** An institutions or corporation that made a binding commitment to divest direct ownership, shares, commingled mutual funds containing shares, corporate bonds or any assets classes from fossil fuels companies (coal, oil, natural gas).

"**Partial**" An institution or corporation that made a binding commitment to divest from specific asset classes (e.g. direct investments, domestic equity).

"Coal and Tar Sands" An institution or corporation that made a binding commitment to divest from any coal and tar sands companies.

**"Coal only"** An institution or corporation that made a binding commitment to divest from any coal companies.<sup>6</sup>

In addition to the stranded assets argument, there are other factors institutional investors should consider while deciding which divestment approach to make. The Canadian Centre for Policy Alternatives identifies commodity price risk, energy innovation risk, carbon liability risk, and First Nations and community opposition risk as other risk factors for pension funds to consider.<sup>7</sup> Furthermore, they should also consider a coherent approach to investment in relation to public policy, and take notice of municipal efforts to counter climate change.

Key Term	Definition
Divestment	Selling off all of your holdings in a particular company/fund/industry.
Disinvestment	Selling off some of your holdings.
Exclusion	"Negative screening broadly refers to rejecting companies for failing a standard and can occur on moral, religious, environmental, or social grounds. Exclusion and divestment are negative screening strategies that entail either <b>omitting stocks of particular firms from purchase</b> or purging previously purchased stocks from the portfolio, respectively." <sup>8</sup>

## (b) Historical overview of fossil fuel divestment movement

As with most social movements, the push for fossil fuel divestment did not emerge *ex nihilo*. Divestment evolved as a tactic of the broader climate-change movement, and is therefore best understood as one front in the multifaceted fight against global carbon emissions. The idea of using divestment as a climate-change campaign tactic stretches back at least as far as the early 1990s.<sup>9</sup> But in spite of these deep roots, fossil fuel divestment really only became a social and political force during the second decade of the 21<sup>st</sup> century.

If we want to identify one inciting incident for the fossil fuel divestment movement, a major culprit is the disappointment among environmental activists with the 2009 Copenhagen Accord.<sup>10</sup> Prior to the COP15 conference in Copenhagen, 350.org activists had pursued a strategy of lobbying politicians and pushing for action on climate change through official policymaking channels.<sup>11</sup> But the failure of COP15 to produce any meaningful framework for change prompted activists to revise their strategy and change their focus from government actors to the fossil fuel industry itself.<sup>12</sup>



Divestment began to gather steam in 2010 and 2011, with a handful of student groups on American college campuses (notably Swarthmore College in Philadelphia, sometimes called the birthplace of the movement<sup>13</sup>) demanding that their administrations rid themselves of their interests in fossil fuels.<sup>14</sup> But the movement's watershed moment came in August 2012,

when environmental campaigner Bill McKibben—author of "the first popularzing book on global warming"<sup>15</sup> and the father of the fossil fuel divestment movement—published an article in *Rolling Stone* with two simple arguments:

- 1) If we want to keep the planet from warming more than 2 degrees Celsius, then we need to keep 80% of proven oil/gas/coal reserves in the ground.<sup>16</sup>
- 2) If we want to keep fossil fuel reserves in the ground, then we need to stop fossil fuel firms from digging them up by dismantling their financial and political power.<sup>17</sup>

McKibben argued that efforts to change government policy or individual consumer behaviour had proven futile. Instead, environmental activists should target the fossil fuel companies that have spent billions of dollars actively resisting the global effort to halt climate change:

"[T]he paths we have tried to tackle global warming have so far produced only gradual, halting shifts. A rapid, transformative change would require building a movement, and movements require enemies... [W]hat all these climate numbers make painfully, usefully clear is that the planet does indeed have an enemy – one far more committed to action than governments or individuals. Given this hard math, we need to view the fossil-fuel industry in a new light. It has become a rogue industry, reckless like no other force on Earth. It is Public Enemy Number One to the survival of our planetary civilization."<sup>18</sup>

By reframing climate change from a massively complex international coordination problem to a struggle against a morally repugnant and flagrantly self-interested adversary, McKibben created the bedrock narrative of the divestment movement.

Since 2012, fossil fuel divestment has gained momentum faster than any other divestment movement in history.<sup>19</sup> In 2012-13, divestment spread to dozens of universities and colleges across the United States, with nine post-secondary institutions committing to some form of divest from coal and/or oil and gas.<sup>20</sup> During the same period, however, numerous institutions declined to divest—by the end of 2013, 14 institutions had rejected divestment.<sup>21</sup> This spurred campus divestment groups to pursue greater "escalation" tactics in 2014-15; the efficacy of these tactics is disputed,<sup>22</sup> but collegiate divestments have nevertheless increased at a steady pace.<sup>23</sup>

The divestment movement was born on college campuses and it continues to be waged by university students across the world. But almost 100 municipal governments have also pledged to take some form of divestment action.<sup>24</sup>

- In 2012, Seattle became the first city to divest all of its directly controlled investments from fossil fuel companies—although a push by Mayor Ed Murray to get the municipal employees' pension fund was ultimately unsuccessful.<sup>25</sup>
- In 2013, San Francisco's Board of Supervisors voted unanimously to urge its pension board to divest,<sup>26</sup> but the \$24 billion San Francisco Employees' Retirement System (SFERS) did not follow this recommendation until 2018, when it voted to partially divest from a select list of the "worst" fossil fuel companies.<sup>27</sup>
  - Numerous other small American cities voted to divest in 2013, including Ann Arbor, Michigan;<sup>28</sup> Berkeley, California;<sup>29</sup> Madison, Wisconsin;<sup>30</sup> Providence, Rhode Island;<sup>31</sup> and Santa Monica, California.<sup>32</sup> Most of these cities either

had only very small amounts to divest, or they did not have any investments in fossil fuels to begin with.

- Boxtel, Netherlands became the first European municipality and the first city outside of North America to make a divestment commitment.<sup>33</sup>
- In 2014, the divestment movement continued to gain traction outside of the United States.
  - in Europe, Örebro became the first city in Sweden to divest<sup>34</sup> and Oxford City Council became the first UK municipality to divest.<sup>35</sup>
  - In Oceania, Fremantle, Australia<sup>36</sup> and Dunedin, New Zealand<sup>37</sup> became the first two municipalities in those countries to make divestment commitments.
  - 2014 also saw the notable divestment from fossil fuels by the Rockefeller Foundation.<sup>38</sup>
- 2015 is the year that divestment really took off on a global scale. A large number of global cities announced divestment decisions, including:
  - Canberra<sup>39</sup>
  - Melbourne<sup>40</sup>
  - Oslo became the first capital city<sup>41</sup>
  - Munster became first German city<sup>42</sup>
  - Paris and 18 other French municipalities announced divestment at the COP21 climate talks<sup>43</sup> where nearly all national governments signed the Paris Agreement to keep global temperature under 1.5 degrees Celsius.<sup>44</sup>
- In 2016, Washington DC became the first city to fully divest its pension fund from fossil fuels.<sup>45</sup> The movement continued to grow in Europe and Australia, with some major global cities joining the list:
  - Berlin<sup>46</sup>
  - Copenhagen<sup>47</sup>
  - Stuttgart<sup>48</sup>
  - Stockholm<sup>49</sup>
  - London<sup>50</sup>
  - Sydney<sup>51</sup>
- In 2017, the movement grew further still, with cities like Auckland<sup>52</sup> and Pittsburgh<sup>53</sup> making moves to divest. The most notable event in 2017 was that Cape Town became the first city in Africa—and the first city in the global south/in a developing country—to announce a divestment commitment.<sup>54</sup>

New York City's divestment announcement at the beginning of 2018 attracted a huge amount of attention to the movement, with some commentators speculating that its status as the world's pre-eminent financial hub could "spur [a] global shift."<sup>55</sup> Other analysts claim that 2018 is the year that divestment is "finally going mainstream."<sup>56</sup>

Given the relative recency of the fossil fuel divestment movement, it's still too early to determine whether it will have its desired impacts, if any. This is why it's valuable to look at Apartheid as a case study of other divestment movements—their impacts and their effectiveness at achieving their stated objectives. The following section will delve into the Apartheid divestment movement to see what lessons can be learned from this earlier historical example.

## (c) Apartheid as a model of divestment movements

Divestment campaigns in the 20<sup>th</sup> century have targeted industries such as tobacco, munitions, corporations in apartheid South Africa, provision of adult services, and gaming.<sup>57</sup> One of the most studied campaigns has been the anti-Apartheid movement, which some consider to have been a successful component in the end of the Apartheid regime. However, there is no consensus about exactly how much the anti-Apartheid divestment campaign influenced change in the country. A comparative analysis of the anti-Apartheid and fossil fuel divestment campaigns by Weber, Hunt and Dordi sheds some light into how these two movements have operated in order to achieve different goals.<sup>58</sup> The study found that there are five common themes in the literature of both campaigns: political action, financial action, reputational action, fiduciary approach, and business approach. The table below summarizes the differences and similarities:

Themes	Anti-Apartheid campaign	Fossil Fuel campaign			
Political action	Late 1970s to early 1990s Divest from companies to coerce political outcome 'Means to' remove government	2012 to present Engage government towards 'intended outcome'			
Financial action	Established by institutional and private investors and expanded to target mainstream institutional investors such as pension funds				
	Legislated trade and investment sanctions and corporate divestment	Primarily corporate divestment			
Reputational action	Raise public awareness in general and reputational advantages	in invested institutions and seek			
	Firms withdraw operations from South Africa	Firms change core business			
Fiduciary	Common arguments but conflicting evid risks in the beginning, but change to fina				
approach	Potential financial losses in the beginning of the campaign because of portfolio reduction triggered discussion about fiduciary duty. Later financial outperformance because of declining return of South Africa investments	Potential financial losses in the beginning of the campaign because of portfolio reduction triggered discussion about fiduciary duty. Later financial outperformance because of declining returns of fossil fuel investments			
	Use of exclusionary screening driven by	/ normative arguments			
Business approach	No suggested reinvestment	Sometimes suggested reinvestment strategy through dives/invest movement and renewables as alternative investment strategy in the same industry			

Figure 1: A comparison of Apartheid and fossil fuel divestment movements.<sup>59</sup>

Under these five themes, both campaigns have seen different outcomes. Some aspects that are important to highlight are that both campaigns have succeeded in raising public awareness. This is key to pressure governments to implement policy that can have greater impact; this is essential for the fossil fuel divestment campaign, which faces bigger challenges by the simple fact of being a global campaign that hopes to bring change to the core business of energy companies. These movements have also been recognized by public figures; in the case of the Anti-Apartheid movement Nelson Mandela thanked students and

universities for their actions which he regarded "as a significant milestone in the campaign against Apartheid."<sup>60</sup>

Some of the studies that have tried to measure the impacts of divestment in South Africa have shown no effects on the targeted companies, and have thus questioned the impact of divestment as a tool for social change. These studies fail to account is for increased public engagement. In another study, the authors observed that "the Sullivan Principles (codes of conduct promoting social responsibility) were introduced as a compromise between advocates for divestment and those promoting engagement with South Africa."<sup>61</sup>

Similar to the anti-Apartheid campaign, there is no overall consensus in the literature about the magnitude of the impact divestment is having on fossil fuel companies. An early study on the anti-Apartheid movement looked at the performance of 105 companies from Standard and Poor's 500 that had active investments of \$1 million or more between January 1984 and March 1986. It determined that there was no significant change in the share price for those firms.<sup>62</sup> However, there is growing evidence that suggests that selling fossil fuels holdings can provide a comparable or surplus benefit when reinvested in sectors with higher income potential and less volatility"<sup>63</sup> (see Section 2f). An important limitation to divestment campaigns is that the impact is further reduced when it comes to privately held (not publicly traded) firms. This was an important factor that limited the impact of the anti-Apartheid movement.<sup>64</sup> Although the financial consequences for the fossil fuel industry are still not clear, we cannot expect for the divestment campaign alone to restrain capital. More stringent policy is needed to encourage action on climate change.

Another factor we can learn from looking at previous divestment campaigns is its path of development. We can identify three main waves as identified from the tobacco and South African experiences (Figure 2). In the first phase, only a small amount of divestment happens, but there is a rise on public awareness about the issue. This is usually led by religious groups and industry-related public organizations. The second phase sees divestment by more prominent institutions such as universities, cities and public institutions. The third wave reaches the wider market, and targets large pension funds and market norms like social responsibility investment funds.<sup>67</sup>

e.g., In the 1980s public health organizations including the American Public Health Association, American Cancer Society, and World Health Organization found tobacco products to be contrary to their missions and therefore divested.

Religious groups and industry-related public organizations

1

e.g., In 1980, Protestant and Roman Catholic churches pledge to disinvest \$250 million from banks with ties to South Africa.

e.g., In May 1990, Harvard President Derek Bok announced that the university had divested nearly \$58 million of investments in tobacco companies, stating that "the divestment was prompted by recognition of the dangers of smoking and concern over aggressive marketing tactics to promote smoking among teenagers and in third-world countries."

Universities, cities and select public institutions

> e.g., In 1986 and 1987, Harvard and Columbia university endowments sold off shares in companies with operations in South Africa. The Bank of Boston and Chase Manhattan stopped new Ioan activities in South Africa. U.S. enacted the comprehensive Anti-Apartheid Act of 1986.



e.g., In the mid-1990s several U.S public pension funds began to divest tobacco holding due in part to the 1994 decision by the U.S. Food and Drug Administration to push toward increased regulation of the tobacco industry, which created uncertainty about future financial performance of tobacco stocks. Mississippi led a suit against the tobacco industry to retrieve Medicaid funds for tobacco-related illness caused in the state paving way for further state-led litigation. Massachusetts enacted legislation requiring complete divestment and barring future holdings.

e.g., In 1998, U.S. pension funds and universities continued to divest and the campaign became global: Britain's Barclay's Bank divested and stopped lending; some Japanese and other foreign companies began to halt operations in South Africa. Figure 2: The three stages of divestment movements<sup>68</sup>

## (d) Divestment and its relationship with ESG screening

Environmental, social, and governance screening for investment decisions (ESG) has a complex relationship with the divestment movement. Some jurisdictions have used ESG as an *alternative* to full divestment; others have used ESG as a *complement* to divestment, or as the vehicle through which divestment is enacted. This section will discuss the relationship between ESG and divestment, looking at a specific example where an emboldened ESG policy was used as an alternative to full and immediate divestment.

#### ESG as an Alternative to Divestment: U of T Case Study

"...this ESG factor-based approach is the most practical and promising means by which to influence firms' behaviour and ultimately to help reduce GHG emissions and move us towards a low-carbon economy: it is fully aligned with the University's fiduciary duties; it provides a framework that accommodates a comprehensive range of factors in addition to those most directly related to climate change; it addresses the practices of fossil-fuel consumers as well as producers; it is supported by the growing body of data and analytical tools to evaluate potential investments in terms of climate-related risk; and it could ultimately be applied to indirect (or 'pooled') as well as direct investments."<sup>69</sup>

Meric Gertler, University of Toronto President

One of the best examples of the relationship between ESG screening and the divestment movement comes from close to home. In March 2016, University of Toronto President Meric Gertler released a report outlining how the university's ESG principles would be updated in line with his advisory committee's recommendation to divest.<sup>70</sup>

President Gertler struck the advisory committee in response to a petition from Toronto350, the university's chapter of the larger 350.org divestment movement.<sup>71</sup> The committee was created under the university's 2008 Policy on Social and Political Issues With Respect to University Divestment,<sup>72</sup> which requires that responses to divestment petitions consider:

- 1) Prudent investment and fiduciary duty obligations;
- 2) Social injury caused by a company; and
- 3) Actions taken by the federal government or other bodies.

In December 2015, the advisory committee came back with a report recommending that university administration pursue "targeted and principled divestment from companies in the fossil fuels industry."<sup>73</sup> This divestment would target fossil fuel companies that "engage in egregious behaviour and contribute inordinately to social injury. These are the fossil fuels companies whose actions blatantly disregard the international effort to limit the rise in average global temperatures to not more than one and a half degrees Celsius above pre-industrial averages by 2050."<sup>74</sup>

The advisory committee recommended that the university establish clear criteria for identifying these companies. Notably, the committee remarked that "a blanket divestment strategy would be unprincipled and inappropriate."<sup>75</sup> Instead, the committee suggested three key forms<sup>76</sup> of "egregious behaviour" that would mark a company for divestment:

- 1) Firms that derive more than 10% of their revenue from "non-conventional or aggressive extraction" such as open-pit bitumen mining, Arctic drilling, or thermal coal mining.
- 2) Firms that knowingly lie and spread misinformation about climate change, or that attempt to distort climate science and policy.
- 3) Firms that derive more than 10% of their revenue from coal extraction for power generation, or power generators who derive more than 10% of their revenue from burning coal.

The committee identified ConocoPhillips, ExxonMobil, and several coal companies as examples of firms that should be divested from under these guidelines.<sup>77</sup>

Ultimately, the report put forth both a moral argument and an instrumental argument (that is, that the university could send a signal that would change public opinion and the social licence of fossil fuel firms, which could drive broader environmental public policy). Its targeted-divestment model was touted as establishing a "Toronto Principle" that other universities could follow.<sup>78</sup>

The university administration chose not to directly implement the committee's recommendations. Instead, President Gertler's report of March 2016 identified strengthened ESG screening as an alternative to divestment, stating that "we have embraced the spirit and followed the logic of the Committee's recommendations, while taking what we believe to be a broader – and ultimately, even more impactful – approach to the question of investment and fossil fuels."<sup>79</sup>

The approach outlined in the Gertler Report identifies six advantages<sup>80</sup> of an active ESG factor-based investment strategy:

- 1) It is compatible with fiduciary duty requirements, as there is a growing consensus among financial experts that ESG factors are correlated with improved investment performance.
- 2) ESG casts a wider net than just climate-related risk when it comes to environmental policies, such as with water use and air pollution.
- 3) ESG also considers social factors related to environmental exploitation, such as the rights of Indigenous communities.
- 4) ESG allows U of T to screen direct investments not only in producers, but in major consumers of fossil fuels. Here the report highlights (as it does many times elsewhere) that "fossil-fuel producers account for only 25 percent of Canada's GHG emissions."<sup>81</sup>
- 5) Using standardized ESG criteria obviates the need for U of T to have to develop its own definitions and screening criteria.
- 6) An ESG screen can be applied to indirect investments (in pooled or indexed funds) as well as direct investments.

Additionally, the Gertler Report instructs University of Toronto Asset Management (UTAM) to evaluate the feasibility of becoming a signatory to the Carbon Disclosure Project (CDP), the United Nations Principles of Responsible Investing (UNPRI), and the Montreal Carbon Pledge.<sup>82</sup> All three of these international initiatives require investors or corporations to measure and disclose the carbon footprints of their investments or activities, and include commitments to uphold ESG principles. President Gertler also mandated that UTAM, if possible, include a section on the impacts of this new ESG policy in its annual reports.

UTAM implemented President Gertler's instructions in the second half of 2016. In its 2016 Annual Report, it noted that U of T had become a signatory to UNPRI in December 2016 and incorporated its six principles as part of its new ESG criteria.<sup>83</sup> UTAM's inaugural Responsible Investing Report elaborated upon this, describing the mechanisms for selecting and monitoring asset managers.<sup>84</sup> As of 2016, the University of Toronto had roughly CAD \$6.5 billion under long-term management to which these criteria applied.<sup>85</sup> We contacted UTAM to ask if they have negatively screened (i.e. divested or excluded) any firms as a result of this new policy, but we were unable to receive a response.

#### ESG as a Complement to Divestment: Best-of-class engagement

The University of Toronto method can broadly be described as using ESG as an alternative to divestment. But ESG screening can also function as a complement to divestment, such as when an investor integrates targeted divestment into a best-of-class engagement strategy.<sup>86</sup>

Best-of-class engagement is when an investor uses well-defined ESG criteria to build a portfolio with only the highest-ranking firms in each field/sector.<sup>87</sup> The fundamental logic behind best-of-class engagement is that by rewarding the firms with the highest ESG scores, investors will incentivize laggards within the same industry to improve their ESG performance.<sup>88</sup> This logic follows one of the key arguments against blanket divestment: that investors will have a greater impact on GHG emissions reduction if they maintain their investments in fossil fuel firms and use both their voice as a shareholder and their wallet to influence corporate behaviour.

It's easy for divestment campaigners to dismiss this argument by pointing out that institutional investors—let alone *individual* investors—are generally too small to have any impact on a company's decisions. But Cedric Dawkins of Dalhousie's Rowe School of Business argues that divestment and engagement must function as complements to each other: "divestment and best-of-class engagement can be melded into a composite approach that employs an exclusionary SRI strategy for inviolable *dealbreaker* issues at its base and best-of-class engagement for issues that are less critical or urgent."<sup>89</sup>

Dawkins' main argument is that divestment gives the ESG screening approach of best-inclass engagement teeth. He argues that every SRI strategy has a "ground floor of absolute and unimpeachable standards;"<sup>90</sup> if a firm's ESG standards fall beneath that floor, then its stock should be divested and excluded from future purchase.

Dawkins cites a number of pension funds in the Netherlands, Sweden, Norway, and New Zealand that have taken this approach.<sup>91</sup> In the case of cities, Sydney, Melbourne, Seattle, and Vancouver have taken this approach to divestment, which will be described in greater detail in Section 3c.

#### (e) Litigation in the Fossil Fuel Divestment Movement

Some cities have taken divestment a step further and sued oil companies, attempting to trace these firms' responsibility for global warming and make them incur the costs of both damages and efforts to protect cities from climate change. New York City is one of the latest examples to take that route, and it will be discussed in more detail later on (Section 3a). To understand why some cities have pursued litigation, we need to remember that one of the main objectives of the divestment campaign is to undermine the "social legitimacy" of the fossil fuel industry. This is also an important step in making this a "just transition." As argued by Professors Noel Healy and John Barry:

"the challenge is that many energy consumers, analysts and policymakers frame energy and climate risks in a de-ethicized and depoliticized vacuum, silent on issues of social (in)justice or democratic processes... Divestment, in calling for a full 'life/cycle' political economy analysis of energy draws attention to the full range of actors, dynamics and interests that are behind energy extraction, production and final use, including environmental externalities." <sup>92</sup>

Since the litigation process between cities and fossil fuel companies is ongoing, we decided to look at a case brought against Harvard University where seven law students tried to compel the university to divest its endowments from fossil fuel companies. One of the plaintiffs, Benjamin Franta, establishes that the "purpose of climate litigation in general is to parse climate change's causes, identify agency and responsibility and offer routes for justiciability and the alleviation of harm. In the context of fossil fuel divestment litigation, such parsing involves linking investment decisions and climate change impacts."<sup>93</sup> The case was ultimately dismissed by the court, on the grounds that the "chain of causation" between the actions of fossil fuel firms and climate change could not be established with enough evidence.

Cities face an uphill battle to prove the chain of causation which includes "fossil fuel financing, production, transport, possible export, and end use. Establishing responsibility for climate change impacts at any given point in the chain can prove difficult."<sup>94</sup> But whatever the verdict, there can be positive results. The impact of litigation in the fossil fuel divestment movements should also consider that "the production of public debate may be as (or even more) important than the legal outcomes of litigation."<sup>95</sup> This can be compared to the use of courts by social and political movements from the abolitionist and women's rights movements of the nineteenth century to the civil rights movements of the twentieth century.

## (f) Measuring impacts of divestment: Financial, environmental, economic, and social factors

Does divestment work?

Perhaps unsurprisingly, it's difficult to answer this seemingly simple question. In order to address it, in this section we will break down this question into six related sub-questions:

- 1) What are the core goals of the divestment movement?
- 2) Has the divestment movement achieved any of these goals, or at least made strides toward achieving them?
- 3) Is it possible to measure the impacts of divestment decisions?
  - a) What impact, if any, have divestment decisions had on the **financial** returns of investors?
  - b) What impact, if any, have divestment decisions had on **<u>environmental</u>** outcomes?
  - c) What impact, if any, have divestment decisions had on broader <u>economic</u> outcomes (including the value of fossil fuel stocks, decisions by fossil fuel firms, potential reinvestments of divested funds, etc.)?

This section will end with a discussion of the **<u>social</u>** impact of divestment, emphasizing throughout how divestment, as a social movement, ultimately aims to revoke the social license to operate of fossil fuel companies.<sup>96</sup>

#### **Core Goals of the Divestment Movement**

The fossil fuel divestment movement follows a cellular organizational structure (with chapters of 350.org pushing for divestment in jurisdictions around the world) and, as such, we can expect that the goals of individual chapters will vary depending on local contexts. But for the purposes of this report, we assume that most of these individual cells (and any divestment campaigners who are not affiliated with 350.org) share the following core goals, which are articulated on the About page of 350.org:

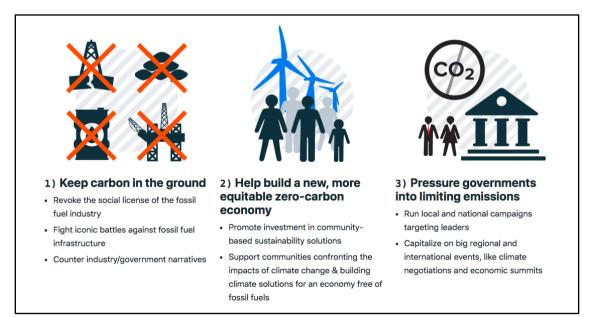


Figure 3: The core goals of 350.org<sup>97</sup>

#### Has the movement achieved its goals?

Following the framework established by 350.org above, a preliminary analysis suggests that the movement has not achieved the central objective of Goal 1 (Keep carbon in the ground)—although it has countered industry/government narratives by attracting widespread media attention. The movement has also had some successes at Goals 2 (Help build a new, more equitable zero-carbon economy) and 3 (Pressure governments into limiting emissions). As will be described below in greater detail, the primary accomplishment of the divestment movement thus far has been to produce spillover effects into environmental policies.

#### Is it possible to measure impacts?

As will be repeated many times below, because of the small scale of divestment (when you account for the magnitude of total funds invested in fossil fuels)—and because of the way that investment works generally, with many investments held indirectly through pooled funds—it is difficult to measure any direct impacts of divestment with certainty.

Furthermore, because fossil fuel divestment is such a recent phenomenon, it is difficult to find academic literature describing its impacts. Most of the peer-reviewed sources we have identified and included below only touch on the early years of the divestment movement (2012-2015); in general, it's too early to measure long-term impacts. We have therefore included numerous statements from non-traditional sources, including popular media and institutional reports. Many of these statements are fundamentally speculative (i.e. how investors would be expected to behave, how markets are expected to react, etc.). Nonetheless, divestment has had a clear social impact and we believe that, as the movement grows, there will be more data to demonstrate the financial, environmental, and economic impacts of divestment decisions.

#### **Financial Impact**

Does divestment have any impact on the financial portfolios of investors?

The answer to this question mainly depends on what is done with the funds that are being divested. With both positive and negative impacts being reported, one report that looked at "university endowments from 2010 to 2014 suggests that selling fossil fuel holdings can provide a comparable or surplus benefit when reinvested in sectors with higher income potential and less volatility, fixed-income green bonds, and even by mitigating energy and water inefficiencies on campus."<sup>98</sup> It would be wrong to generalize this finding since the impact on financial portfolios is very much dependent on the structure, size, and type of investments of each institution.

Richie and Dowlatabadi note that different types of institutional investors have different capacities for divestment. They sort universities into two groups: "Grasshoppers," or institutions that rely upon investment income from their endowments to finance their operations, and "Ants," or institutions that reinvest any endowment income or use it for capital projects as opposed to operations. Ants are more capable of divesting than Grasshoppers, because they have a higher risk tolerance. Thus, institutions with large endowments and small operating budgets (like Swarthmore College) are more capable of

and more likely to divest.<sup>99</sup> This model suggests that institutions that rely on investment income for their operations (including pension funds, and cities' directly controlled investments if they are expected to contribute to the bottom line of municipal budgets) will face higher barriers to divestment.

In addition, a 2017 annual report by Genus Fossil Free, a Vancouver-based investment firm, argued that "Divesting from fossil fuels for the three-year period ending December 31, 2016 has produced better results than the returns of the fund's benchmark, and the overall Canadian stock market index, both of which include coal and major carbon producing industries, while also demonstrating lower rates of volatility."<sup>100</sup> As of 2017, Genus has CAD \$1.3 billion under management.

It is also important to note that one of the repeated arguments in the divestment campaign is to address the stranded asset risk. However, since there is a wide range of environmental factors and an uncertainty as to how fast those risks can materialize, we can argue that institutional investors are limited in their ability to react to these risks if they do not monitor their fossil fuel exposure closely. Ritchie and Dowlatabadi also argue that divesting only provides a small reduction on the overall exposure to carbon.<sup>101</sup> Overall, "pension funds can also take on stranded asset risks through their investments in bond markets (primarily corporate bonds issued by major energy companies, but also government debt), commodity markets, and fossil fuel infrastructure (such as pipelines, equipment, and export facilities)."<sup>102</sup>



#### **Environmental Impact**

As stated above, one of the main goals of the fossil fuel divestment movement is to "keep it in the ground."<sup>103</sup> As such, achieving environmental impact is critical to the movement's success.

One of the movement's main environmental goals has been to stimulate "restrictive legislation" from governments (see Goal 3 above). According to Caldecott and Tilbury, "This approach is likely to fail... a ban on drilling is akin to forcing governments to outlaw the smoking of cigarettes or drinking of alcohol. Despite a near-consensus that tobacco contributes to premature death, no government has seriously considered such a ban. When the manufacture and sale of alcohol was made illegal during Prohibition in 1920s America a vast illicit trade quickly emerged."<sup>106</sup>

While it is true that the divestment movement is unlikely to stop the consumption of fossil fuels altogether, the movement has achieved spillover effects on environmental legislation such as carbon caps and taxes. This will be described below in greater detail.



Another obstacle to divestment's environmental impact is the stateowned-enterprise (SOE) factor.<sup>104</sup> Simply put, "those fossil fuel companies which the divestment campaign can hope to influence via government lobbying are minor players compared to the national oil companies, such as Saudi Aramco or Iran's NIOC."<sup>105</sup> The Oxford Smith School report includes the follow graphic to illustrate the magnitude of the disparity between reserves held by private fossil fuel firms and SOEs. Although there are plenty of publicly listed state-owned oil companies, the key point is that even if every penny was divested from every fossil fuel company, there is a huge majority of firms that would still be able to operate. Divestment will never shut down the fossil fuel industry—and keep oil in the ground—by starving it of funds.

Finally, the divestment movement primarily targets the top 200<sup>107</sup> publicly listed fossil fuel companies—100 coal producers and 100 oil & gas producers—based on the estimate carbon emissions of their burnable reserves.<sup>108</sup> This means that the movement is only targeting firms upstream in the fossil fuel value chain (see Figure 3), when in fact firms downstream (and even heavy fossil fuel consumers in other industries) may be much more carbon intensive.



Figure 4: Publicly listed vs. State-owned fossil fuel firms

Figure 5: The fossil fuel industry production chain<sup>109</sup> Despite these discouraging considerations, if we consider the fossil fuel divestment movement as mainly a tactic in the larger strategy of environmental campaigning, divestment can produce spillover effects into better environmental policies in both state regulation and internal corporate governance. Dawkins notes that "[even] a failed divestment can have spillover effects on reputation, and some proponents have described divestment as an initial step in stigmatizing and 'socially bankrupting' firms that have poor ESG performance (Beeler 2015)."<sup>110</sup> When universities have rejected divestment, they have almost universally chosen to implement some other kind of environmental action, be it adding ESG factors to their investment policies, reducing institutional carbon emissions, or funding research into renewable energy.<sup>111</sup>

Thus, although divestment has significant obstacles when it comes to producing direct environmental impacts through ceasing fossil fuel companies' operations, it can still produce some impacts through concessions by non-divesting institutions. In terms of environmental activism, divestment can therefore be coded as a bargaining chip in a negotiation—the high opening bid, from which campaigners can negotiate down. The following two sections, identifying economic and social impacts of divestment, will elaborate upon this idea.



#### **Economic Impact**

This section will explore whether divestment has had any impact on the broader economy, particularly on the valuation of fossil fuel assets and stock prices for fossil fuel firms.

The short answer is that the divestment campaign has had limited-to-no impact on these factors. As Caldecott and Tilbury (2013) note: "Even if the maximum possible capital was divested from fossil fuel companies, their shares prices are unlikely to suffer precipitous declines over any length of time."<sup>112</sup> Their report, published through the University of Oxford's Stranded Assets Programme of the Smith School of Enterprise and the Environment, elaborated a theoretical model that established that fossil fuel divestment by university endowments and public pension funds would have little impact on stock prices unless "the net present value of the target firm's cash flows is not meaningfully affected."<sup>113</sup> Furthermore, Caldecott and Tilbury note that divested assets could easily make their way to investors who might take advantage of the "short term discount."<sup>114</sup> This is one of the most common arguments against any potential economic impact of divestment. As Oxford professor William MacAskill puts it: "As long as there are economic incentives to invest in a certain stock, there will be individuals and groups-most of whom are not under any pressure to act in a socially responsible way-willing to jump on the opportunity...As soon as an ethical investor sells a share, a neutral or unethical investor will buy it."<sup>115</sup> Environmental journalist Marc Gunther writes that "[it] would take an extraordinarily large amount of divestment to actually hurt a company's stock price. And if it did, less scrupulous investors might see a deal on the undervalued stock and just prop it back up. As long as there is money to be made in fossil fuels, someone will make it. No policy expert thinks that divestment will push fossil fuel companies out of business."116

Despite this phenomenon surrounding divestment from oil and gas stock, Caldecott and Tilbury found that divestment from coal has a greater impact. As coal stocks are less liquid, divestment announcements have a more significant effect on coal stock prices.

Ultimately, the indirect impact of divestment could be more significant than any direct impact from removing equity funding. The divestment movement could "create long-term impact on the enterprise value of a target firm if the divestment campaign causes neutral equity and/or debt investors to lower the subjective probability of target firm's net cash flows."<sup>117</sup> This argument relies upon the divestment campaign attaching a social stigma to the practice of holding shares in fossil fuel firms. As Caldecott and Tilbury aptly put it: "The outcome of the stigmatisation 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. Any direct impacts pale in comparison."<sup>118</sup> The biggest economic threat to fossil fuel firms is therefore stigmatization. This will be discussed in detail in the following section on the social impact of divestment.





#### **Social Impact**

Fossil fuel divestment has limited financial, environmental, and economic impacts. But, as we continue to reiterate, divestment is first and foremost a social movement. This is why, despite its negligible impacts on financial, environmental, and economic metrics, divestment campaigners have characterized the movement as a huge success. "Put simply, the divestment movement is not even a blip on the world's capital markets. Yet McKibben says the campaign is succeeding 'beyond our wildest possible dreams."<sup>119</sup>

The fossil fuel divestment campaign is the fastest-growing in history.<sup>120</sup> Even if the USD \$6.1 trillion figure claimed by 350.org is of dubious accuracy (or, at least, difficult to understand and fully account for), and even if some of the jurisdictions identified as divesting by 350.org have not technically divested any funds (as will be described in our case studies below), the fact that these jurisdictions even see value in declaring their intention to divest points to the movement's social success. Divestment announcements receive widespread media coverage, almost all of it congratulatory; we have not tabulated the data on how many articles are pro-divestment versus anti-divestment, but after three months of research we are hard-pressed to come up with examples of critical reactions to divestment announcements.

Furthermore, as described above, even announcements rejecting divestment almost always bring statements of other policy changes. The fossil fuel stigmatization process described by Caldecott and Tilbury may be only just beginning, but the authors note that "In almost every divestment campaign we reviewed from adult services to Darfur, from tobacco to South

Africa, divestment campaigns were successful in lobbying for restrictive legislation affecting stigmatised firms."<sup>121</sup> Though attempts to secure anti-drilling or anti-exploration legislation have largely failed (as described above), the divestment movement has indeed shifted public discourse on climate change and brought alternative policies like carbon taxes into the mainstream. Ben Adler asks: "is divestment just a diversion from the work that matters most — convincing governments to adopt carbon caps or taxes? Not according to the activists who are working on both causes at once. They argue that divestment campaigns aid the climate movement by creating opportunities within institutions to discuss climate change."<sup>122</sup>

There is indeed evidence that the divestment campaign has had an impact on climate change discussions within institutions. Schifeling and Hoffman (2017) find that the divestment movement has had a "radical flank effect" on climate change discourse in the United States.<sup>123</sup> The radical flank effect describes how a small group of vocal campaigners on the fringe of a social issue can draw more moderate supporters further towards their position in the debate—essentially shifting whatever is perceived as "the centre" or the moderate position on an issue. Bill McKibben, 350.org, and the divestment movement as a whole have become this radical flank for the climate change activist movement. Schifeling and Hoffman performed a network text analysis of over 42,000 American news articles and found that "as these new actors and issue entered the debate, liberal policy ideas (such as a carbon tax), which had previously been marginalized in the U.S. debate, gained increased attention and legitimacy while the divestment effort itself gained limited traction."<sup>124</sup> The authors concluded that "the actual influence of Bill McKibben on the U.S. climate debate goes beyond the precise number of schools that divest to include a shift in the social and political discourse."<sup>125</sup>

Though stigmatization has yet to impact the price of fossil fuel stocks, the movement is on the radar of industry leaders as well as government officials. In 2017, the CEO of Shell stated that "'This is the biggest challenge as we have at the moment as a company... The fact that societal acceptance of the energy system as we have it is just disappearing.'"<sup>126</sup>

Ultimately, as Marc Gunther states, "the goal of the divestment campaign is not, and has never been, to do financial harm to fossil fuel companies by causing investors to sell their shares... The divestment campaign aims, first, to build a bigger and stronger climate movement, and, second, to put the fossil fuel industry on the defensive by attacking its reputation and challenging the long-term viability of its business in a climate-constrained world."<sup>127</sup> Though its financial, environmental, and economic impacts may be indirect and hard to measure—if they even exist at all—it's undeniable that the fossil fuel divestment movement has had a social impact.

# (3) Divestment in Eight Global Cities

## (a) Overview

In order to understand how cities have approached the divestment movement, we analyzed the process by which eight cities around the world decided to divest and implemented this decision in their investment policies. The case studies below form a representative sample of the dozens of municipalities that have announced divestment commitments. We selected these cities because of their similar population size, economic dynamism, regional importance, and global reputation as Toronto.

#### **Our Methodology**

In order to fully evaluate the process by which cities decided to divest and implemented this decision, we created an evaluation matrix with 17 key questions (see Appendix A for the full list). We performed desktop research (using news articles, and press releases, council records, and policy documents available on cities' websites) to fill in this matrix as best we could. We then spoke to city staff at the different municipalities to fill in the gaps (see Appendix B for contact information).

It should be noted that it has been very difficult to find relevant, up-to-date, and accurate information on these cities. In most cases, divestment announcements were met with enthusiastic media coverage, but little follow-up reporting. Put more baldly: as far as we can tell, with one notable exception (see London section below), nobody has really checked up on these cities to see if they have actually followed through on their divestment commitments.

#### General trends in our case studies

Investment Types	Reaction to divestment	Legal constraints	Market constraints
Pension Funds	- Incremental - Targeted	Fiduciary duty obligations (in some cases, ROI is the only criterion that pension boards are allowed to consider)	<ul> <li>Insufficient supply of fossil free funds for reinvestment</li> <li>Fossil free funds too small for volume of municipal investments</li> </ul>
Directly Controlled Investments	- Exclusion - ESG Policy Based	Legislated constraints on equity investment	- Immaturity of the market

Our first major observation was that cities have reacted differently to divestment based on the type of fund they are examining. There are two general categories of funds that are of interest to municipalities: pension funds and directly controlled investments.

#### **Pension Funds**

Pension funds tend to be controlled by independent boards of trustees who make investment decisions independently from either council or city administration. These trustees are legally bound by fiduciary duty responsibilities—that is, legislated requirements that they must act in the best interest of the pension-holders that they represent. This can mean different things in different jurisdictions, but generally it means that pension trustees must make decisions that deliver the maximum return on investment (ROI) for pensioners' money. Pension trustees are very risk-averse because of this legal constraint, and the fiduciary duty requirement is the number one cited reason for pension funds to reject calls for divestment.

Pension funds that have opted for divestment have been very careful with the way they implement this decision, choosing to target specific types of firms (notably coal producers) before considering further divestment from oil and gas companies. In many cases, pension funds have also enacted ESG screening policies to exclude future investments, both as a complement and as an alternative to divestment.

Two of our four pension fund cases (London and Oslo) represent partial divestments; Washington, D.C. was the only city we could find that has fully divested its pension fund. It's worth noting that in two other cities we looked at (Seattle, San Francisco), a political leader or body made a divestment pledge before being shut down by their pension board. It remains to be seen whether New York will follow the path of the first two or the latter two cities; although political leaders announced divestment in January 2018, two of the city's five pension boards have already voted not to divest, citing fiduciary duty responsibilities.

#### **Directly controlled investments**

Directly controlled investments are funds that cities maintain to generate additional revenues with their cash on hand (and to meet other short-term payments). These investments are controlled by city staff and are subject to investment policies created directly by city councils. There is thus more leeway for divestment here than for pension funds, but curiously none of the cities we studied had divested any funds from these investment pools. Instead, the trend is to create ESG policies that exclude any future investments in fossil fuels.

It's worth noting that none of the four cities we studied (Sydney, Melbourne, Seattle, and Vancouver) had direct investments in fossil fuel equities. In the cases of Sydney and Melbourne, Australian federal law prohibits them from investing in anything other than an Australian financial institution. During their divestment announcements, political leaders in both cities vowed to divest any assets in banks which fund fossil fuel firms, but instead both cities implemented exclusionary ESG screens. In the cases of Seattle and Vancouver, these ESG screening policies were implemented without reference to divesting indirect holdings.

#### **Market constraints**

For both types of funds, pension fund managers and city investment managers have cited the insufficient supply of fossil free funds for reinvesting any divested funds—particularly for the large sums they possess. The immaturity of the fossil free investment market is therefore holding back many divest/reinvestment actions.

## Summary of findings

The table below provides a high-level overview of the eight cities we researched in our study.

Cities divestir	Cities divesting their pension funds							
City	Date divestment announced	Total assets	Amount divested (%)	Implementation timeline	Type of divestment <sup>1</sup> 28	City pop.		
New York	January 2018	USD \$189 billion	USD \$5 billion (2.65%)	Next five years (2018-2023)	Full, pension fund	8.5 million		
London	March 2015	GBP £5.3 billion	£61 million (1.15%)	2015-2020	Partial, pension fund	8.6 million		
Oslo	October 2015	NOK 85kr billion	N/A	2015-2030	Partial, pension fund	666,759		
Washington, D.C.	June 2016	USD \$6.4 billion	USD \$6.5 million	Complete	Fossil Free, pension fund	693,972		
Cities divestir	ng their directl	y controlle	d investmer	nts				
City	Date divestment announced	Total assets	Amount divested (%)	Implementation timeline	Type of divestment	City pop.		
Sydney	August 2016	AUD \$630 million	N/A	Complete	Exclusion, not divestment	5 million		
Melbourne	October 2015	AUD \$95 million	N/A	Complete	Exclusion, not divestment	4.5 million		
Seattle	December 2012	USD \$2.85 billion	N/A	Complete	Exclusion, not divestment	704,352		
Vancouver	Not announced	CAD \$2 billion	N/A	Complete	Exclusion, not divestment	2.2 million		

## (b) Cities divesting their Pension Funds

#### **New York**

New York City, United States						
Date announced	Total assets	Amount divested (%)	Implementation timeline	Type of divestment	City population	
10 January 2018	USD \$189 billion	USD \$5 billion (2.65%)	Next five years (2018-2023)	Full, pension fund	8.5 million <sup>129</sup>	

New York City is perhaps the most famous municipal government to have made a divestment commitment, announcing with huge fanfare earlier this year that it would divest the USD \$5 billion in its pension funds that are currently invested directly in fossil fuel companies.<sup>130</sup> The City has marked 194 companies for divestment, using two GIC codes (Global Industry Classification standard)—Integrated Petroleum Companies and Exploration & Production—to identify these firms.

A number of factors led to New York's divestment decision. The City had been lobbied by activists for five years,<sup>131</sup> including providing briefings to . According to City staff, the impetus to divest now came from the Mayor's decision to launch a lawsuit against five major fossil fuel companies; the rationale behind the lawsuit is that these firms are responsible for having misled the public about climate change for decades, and now the City has to pay huge costs from extreme weather events like Hurricane Sandy.<sup>132</sup> The divestment decisions was also driven by the US President's July 2017 decision to withdraw the United States from the Paris Agreement, and by Governor Andrew Cuomo's December 2017 announcement that the State of New York would be divesting its pension fund from fossil fuels.

On the same day as the Mayor announced divestment, City Comptroller Scott Stringer submitted a resolution to the City's five pension boards urging them to begin studying the divestment process.<sup>133</sup> The implementation process is separate for each of the five boards. This poses some challenges for the Mayor; although he and the Comptroller sit on all the pension boards, they do not have a controlling vote on any of them. As *Politico* reports: "de Blasio's proposal — which was not actually to divest, but to simply study its effects — immediately drew skepticism from New York City's five pension boards, which worried that dropping oil and gas stocks would hurt their retirees' financial futures. The police pension board quickly rejected the idea. The firefighters' board tabled the notion. Trustees on the other three boards approved the study, but still expressed wariness."<sup>134</sup> Our interview contact noted that the he did not expect the firefighters' board to continue with the study, as neither the police nor firefighters' board voted to divest from thermal coal when the others did in 2015.<sup>135</sup> In addition to the receiving reports from consultants on the divestment process they could undertake, the boards will also seek a legal opinion on whether they can divest, given their fiduciary duty obligations.

Ultimately, it is still very early on in New York City's divestment process. It remains to be seen whether the three pension boards that have moved ahead with studying divestment will actually withdraw funds from any of the 194 companies identified by the City.

#### London

London, United Kingdom - London Pension Fund Authority					
Date announced	Total assets	Amount divested (%)	Implementation timeline	Type of divestment	City population
March 2015	£5.3 billion	£61 million	2015-2020	Full, pension fund	8.6 million

The campaign to divest the London Pension Fund Authority (LPFA) gained momentum in 2016, when mayoral candidates from all major political parties promised to divest should they be elected.<sup>136</sup>

After the election of Sadiq Khan, the LPFA introduced a new investment strategy, which had already incorporated the principles of both the UK Stewardship Code and to the UN-backed Principles of Responsible Investment (UNPRI), to include ESG principles. It established that ESG factors must be considered "within investment analysis and decision making."<sup>137</sup>

Subsequently, the LPFA announced in 2017 that it was going to partially divest in a statement addressing climate change; stating that where fiduciary duty allows, they will no longer consider "new active investments in fossil fuel companies directly engaged in the extraction of coal, oil, and natural gas as sources of energy which are ignoring the risks of climate change."<sup>138</sup> Environmental activists have pointed out that this vague statement provides an opportunity for the LPFA to retain and make new investments in fossil fuel firms.

In March 2018, Mayor Sadiq Khan issued a press release calling on other local authorities from across the capital to join the fight against climate change and to divest their pension funds from fossil fuel companies. He also noted that in the coming months he will release the plans to divest City Hall. The statement also included a review of the LPFA, which says that GBP 59 million (2% of the Fund) remain invested in fossil fuel companies. That is below the market benchmark of 6%, and emphasizes the increasing level of investment in renewable energy projects.<sup>139</sup>



#### Oslo

Oslo, Norway - Oslo Pensjonsforsikring					
Date announced	Total assets	Amount divested (%)	Implementation timeline	Type of divestment	City population
October 2015	NOK 85kr billion	N/A	2015-2030	Partial, pension fund	666,759

For Oslo, most of the city's investments consist of its pension funds. The City of Oslo has its own pension insurance company called Oslo Pensjonsforsikring AS (OPF) which manages the portfolio.

In early 2015, OPF announced that it was divesting from coal.<sup>140</sup> Later that year, the incoming City Council further committed to reduce the city's holdings from the oil and gas sector.<sup>141</sup>

OPF follows the exclusion list of The Government Pension Fund Global (the Norwegian oil fund) for those companies that receive 30 percent or more of their income from the production of fossil fuels and those that cause "severe environmental damage, and acts or omissions that on an aggregate company level lead to unacceptable greenhouse gas emissions."<sup>142</sup>

Furthermore, a request of information made to OPF states that they have their own strategy for sustainable investments based on an ESG approach. It is based on analyzing the carbon footprint of the companies invested in, and it mandates to divest from those with high level of carbon intensity. The objective is to reduce the carbon emissions in the portfolio by 40 percent by 2030.<sup>143</sup> As part of their system to measure climate risk, they also include stress tests by which they measure company's ability to "withstand a sharp fall in prices of fossil energy and/or regulatory tightening."<sup>144</sup>



#### Washington, D.C.

Washington, D.C., United States - DCRB						
Date announced	Total assets	Amount divested (%)	Implementation timeline	Type of divestment	City population	
June 2016	USD \$6.4 billion	USD \$6.5 million (1%)	Complete	Fossil Free, pension fund	693,972	

Washington D.C. faced a lot of pressure by activists to divest early on in the movement. It was not until June 2016 that the city announced that it had fully divested from fossil fuels.<sup>145</sup> Following this press release, the District of Columbia Retirement Board (DCRB) made a public announcement explaining that since the adoption by the Board of an ESG Policy in November 2013, the Board started evaluating the risk factors of its fossil fuel investments. One criteria point in the framework, established that "the ESG Initiative must target risk-adjusted, market-rate returns and provide net returns equivalent to or higher than other available investments at commensurate levels of risk. Social benefits of the ESG Initiative will not justify lower risk adjusted returns or higher investment risk for the Retirement Fund or any asset class within the Retirement Fund portfolio."<sup>146</sup> Since then, the Board's direct holdings in public companies on the Carbon Tracker 200 List was reduced from USD \$20 million (.33% of portfolio) to 0%.<sup>147</sup>

We interviewed DC Divest, who lobbied for this cause. They explained how there was opposition from unions for fear on how this might impact their returns back in 2013 when the matter was discussed at the City Council. Another argument put forth against divestment was that it would be better to engage with the fossil fuel companies to influence change. It is also relevant to note that in Washington D.C. the City Council has a mandate over the DCRB.

Since divestment was achieved, the campaign has now turned to divest from Wells Fargo for their financing of the Dakota Access Pipeline.<sup>148</sup>



## (c) Cities divesting their directly controlled investments

#### Sydney

Sydney, Australia <sup>149</sup>						
Date announced	Total assets	Amount divested (%)	Implementation timeline	Type of divestment	City population	
August 2016	AUD \$630 million	N/A	Complete	Exclusion, not divestment	5 million <sup>150</sup>	

Clover Moore, Lord Mayor of the City of Sydney, announced her city's intention to divest in August 2016. This decision was supported unanimously by the city council. The Lord Mayor instructed City staff to explicitly include coal, gas, and oil production in Sydney's ESG screening process.<sup>151</sup> The City's investment policy (as of October 2017) now includes the line "production of pollutants, toxins and greenhouse gases (coal, oil and gas)" under its environmentally harmful activities definition.<sup>152</sup> There were thus no great practical or political obstacles to implementing divestment in Sydney.

The Lord Mayor stressed that since Sydney had funds invested in Australia's Big 4 Banks and since these banks had collectively invested over AUD \$5.5 billion into fossil fuel companies in 2015—these banks would be the main target of the City's divestment.<sup>153</sup> Under Australian law, cities are not allowed to invest directly in equities.<sup>154</sup> This focus on the divestment of indirect investments (i.e. pooled funds managed by financial institutions) is quite unique, and represented a vanguard stance by the City of Sydney. However, City staff have informed us that Sydney has not withdrawn any funds from these banks, nor has it applied its exclusion policy to all investments. Sydney's investment policy amounts less to a divestment and more to a statement of preference for socially and environmentally responsible investments: "if we can find a product from a fossil free institution, we will give that preference. But we won't take less return to give it preference."<sup>155</sup>

Activists from Go Fossil Free blogged about how they pushed the city council into adopting divestment after two years of engagement.<sup>156</sup> City staff dispute this narrative, suggesting that the City was already on its way to updating its ESG screening policy before activists got involved—and they only ended up changing one word in the investment policy as a result of 350's involvement. The Lord Mayor's divestment motion does note, however, the presentations that 350.org activists had given to council.<sup>157</sup>

The City of Sydney's investment team meets regularly with financial institutions, most often with Westpac (one of the Big 4 and the City's transactional banker). Both the Lord Mayor and the City's investment staff mention that, at these meetings, the City expresses its desire for fossil free investment options. The Lord Mayor's divestment motion includes a letter to the CEO of Westpac as an attachment.<sup>158</sup> The typical response from these banks is that there is a lack of companies for them to invest into.

The City of Sydney is one of 35 local government authorities within Greater Sydney. Some of the other local councils in the metropolitan region (including Marrickville<sup>159</sup> and Randwick<sup>160</sup> local councils) have made their own divestment commitments.

#### Melbourne

Melbourne, Australia <sup>161</sup>						
Date announced	Total assets	Amount divested (%)	Implementation timeline	Type of divestment	City pop.	
27 October 2015	AUD \$95 million <sup>162</sup>	N/A	Complete	Exclusion, not divestment	4.5 million <sup>163</sup>	

The City of Melbourne completed its divestment action in October 2015 when Councillor Arron Wood's Notice of Motion on Clean Energy Investments was passed unanimously by the city council.<sup>164</sup> This resolution, which functions as the city's investment policy, "commits to not directly investing in any fossil fuel or fossil fuel aligned companies into the future."<sup>165</sup> The resolution also states that when the city's transactional banking services are up for tender (i.e. when the city needs to select a new bank to manage its investments), candidates "will be requested to complete a questionnaire on their exposure and support to the fossil fuel sector. These responses are to be taken into consideration when deciding to award the transactional banking services contract."<sup>166</sup> The City will use the Carbon Underground 200 to negatively screen its future investments.<sup>167</sup>

Like Sydney, Melbourne is prohibited under Australian law from investing directly in equities. As such, the City did not have any direct investments in fossil fuel firms when it announced its divestment. The city's primary investment structure is its superannuation fund; this fund is similar to a pension, but as it is directly controlled by the City we include it in this sample set and not the other (where pensions are managed by independent boards of trustees). Councillor Wood's resolution called for the City to request a fossil free investment option from Vision Super; this request was made, but according to City staff, as of 2018 Vision Super does not offer such a fund. Ultimately, the City of Melbourne has not divested/withdrawn any funds as a result of its new investment policy.

The City of Melbourne is one of 32 local councils in Greater Melbourne. Of the other 31, we could only find information on the City of Moreland's divestment; it pledged to divest/exclude AUD \$36 million from direct investments in fossil fuel firms (even though, like Sydney and Melbourne, it had no such investments and was never legally allowed to) and to start developing a strategy to move away from indirect investments held by financial institutions that fund fossil fuel firms.<sup>168</sup>

#### Seattle

Seattle, United States						
Date announced	Total assets	Amount divested (%)	Implementation timeline	Type of divestment	City population	
December 2012	USD \$2.85 billion	N/A	Complete	Exclusion, not divestment	704,352	

In 2012, Seattle Mayor Mike McGinn formally requested that the city's two pension funds "refrain from future investments in fossil fuel companies."<sup>169</sup> At the same time, McGinn declared that the city's cash pool was not invested in fossil fuels and he directed the city to refrain from doing so in the future.<sup>170</sup> Although the city's direct investments have since excluded any potential investment in fossil fuels, the Seattle City Employees' Retirement System (SCERS) has refused to divest the city's pension funds. It has voted against it in subsequent years based on a board-commissioned report that argues that divestment would hurt the pension fund portfolio.

In 2013, SCERS adopted ESG principles which were updated in 2016. They must demonstrate that they will not negatively affect the return on investment before making any changes.<sup>171</sup> The board-commissioned report stated that as of June 2014 the Pensions' exposure to the Carbon Underground 200 was USD \$116 million (5% of the portfolio).<sup>172</sup> It was also reported that as of 2016, the city's pension fund still held USD \$16 million worth of holdings invested in coal. In February 2015, the Board of Administration directed SCERS to undertake a "positive action strategy" to address climate change concerns and meets fiduciary responsibilities. In this regard "SCERS staff provides a quarterly update to the Board on Environmental, Social and Governance ("ESG") issues, specifically related to climate change, and the positive action strategy."<sup>173</sup> By the end of 2017 SCERS reported to have USD 86.1 million (3.1% of portfolio) in fossil fuel companies.<sup>174</sup>

In the latest attempt to divest, a lawyer for the pension board, "emphasized the board's paramount fiduciary duties and described legal limits the board faces to taking any action that compromises financial return to pursue environmental, social or governance goals."<sup>175</sup> It is worth mentioning that in 2017 Seattle City Council voted to end its relationship with Wells Fargo who managed the city's operating account on the basis that they are financing the Dakota Access pipeline.<sup>176</sup>



#### Vancouver

Vancouver, Canada <sup>177</sup>							
Date announced	Total assets	Amount divested (%)	Implementation timeline	Type of divestment	City pop.		
Not announced	CAD \$2 billion <sup>178</sup>	N/A	Complete	Exclusion, not divestment	2.6 million <sup>179</sup>		

The City of Vancouver is unique in our case studies in that it did not make any kind of divestment commitment or announcement, nor was it featured in any media stories about divestment. We include it in our samples because, after a request from Council about how investments aligned with the City's stated mission and values, administration implemented a policy to screen Vancouver's investments using a scorecard of ESG criteria. This scorecard includes the question: "Does the company currently invest directly or indirectly in fossil fuels?"<sup>180</sup>

This scorecard, which is based on the UN Principles of Responsible Investment, is used to screen the financial institutions that will manage the City's investments. These institutions are subject to an annual screening process where they will be reviewed on their ESG policies and company practices. If an institution that currently holds City investments receives a score below 70%, it will be put on a one-year notice that funds will be withdrawn if its score does not improve. If a new institution is being evaluated and falls below 70%, it will be excluded from the City's list of approved investment institutions. As of 2018, no institution has been divested or excluded based on this scorecard.

It's important to note that, under the BC provincial government's Vancouver Charter, investments are very limited (and do not include equities).<sup>181</sup> So, much like all of the other examples in this section, Vancouver did not have any direct investments in fossil fuel companies. It's unclear whether any of Vancouver's indirect investments touched the fossil fuel industry.

It's also worth noting that the question about direct/indirect investments in fossil fuels is only one of 30 questions—an institution that invests in fossil fuels could receive a zero on this section but still be above 70%, and therefore not be divested or excluded from.



# (4) Divestment and the City of Toronto

Having reviewed these eight case studies, we now turn to the City of Toronto: what are its investment structures? How could it react to the fossil fuel divestment movement? The following section briefly outlines the City's holdings and a potential path forward.

## (a) Toronto's investments

#### Legacy pensions

Current City of Toronto employees have pensions through OMERS, the Ontario Municipal Employee Retirement System.<sup>182</sup> As this pension system is managed independently of the City, it is outside the scope of our study. The City does hold four legacy pension plans for employees who predated the OMERS system:

- Toronto Civic Employee Pension Plan
- Toronto Fire Department Benefit Fund
- Metropolitan Toronto Pension Plan
- Metropolitan Toronto Police Benefit Fund

Together, these funds control approximately CAD \$1.63 billion in holdings. Of this, approximately CAD \$700 million (or 43%) are invested in equities.<sup>183</sup>

#### **Directly controlled investments**<sup>184</sup>

The City of Toronto holds approximately CAD \$6.5 billion in directly controlled investments, managed by the City's Capital Markets Section. These investments are subject to Ontario's City of Toronto Act (2006), which states that the City is eligible to invest in "fixed-income securities such as bonds and chartered bank deposit notes." Also, under this policy, the primary objectives of the City's investment policies must be to ensure the safety of principal, maintain adequate liquidity to fund the City's cash needs, and maximize the rate of return. The City's directly controlled investments are divided into two fixed-income portfolios:

- 1) General group of funds:
  - a) Bond Fund, focused on long-term cash reserves.
  - b) Money Market Fund, focused on liquidity and supplying short-term needs.
- 2) Sinking fund: an account established to ensure that there are adequate funds for the repayment of debentures that the City issues.

#### Fossil fuel exposure in Toronto's investments

One of the key questions that we sought to answer throughout our interviews was: "What percentage of your investments are tied to fossil fuel assets?" Most of the cities that we spoke to were unable to answer this question, because their funds are invested through third-party financial institutions. We assume that the situation is the same for the City of Toronto's directly controlled investments (i.e. the General funds and sinking fund). It's worth asking what portion of the City's legacy pension funds are connected to fossil fuel assets, in order to understand the degree of exposure for these funds (should fossil fuels become stranded assets) and the magnitude of implementing divestment.



#### **Toronto's New Investment Policy, 2018**

The Ontario provincial government recently amended the City of Toronto Act (2006) to allow the City to invest in equities under the provincial prudent investor standard; these changes came into effect on 1 January 2018.<sup>185</sup> The City responded by beginning the process of establishing a new Investment Board and a policy to govern its conduct.<sup>186</sup> On 5 December 2017, council voted to adopt a Statement on Investment Policies and Procedures.<sup>187</sup>

This policy document states that: "The Investment Board should incorporate ESG factors into its investment decision making through its due diligence processes when choosing Investment Managers. As such, when a prospective investment manager is assessed, or an existing Investment Manager is reviewed, the Investment Board will consider the Investment Manager's ESG policies."<sup>188</sup> Furthermore, the policy indicates that: "The City has chosen to monitor the developments of ESG factors and will reconsider its approach as and when appropriate to do so."<sup>189</sup>

This report exists as an instrument to inform the City of developments of ESG factors as they relate to the fossil fuel divestment movement. As such, in the final section of our report, we will provide a brief recommendation of how the City could follow the path of other jurisdictions that have incorporated divestment/exclusion language into their ESG policies.

## (b) Applying conclusions to the City of Toronto

If the City of Toronto wishes to follow the divestment/exclusion model used by other cities identified in this report, we propose a simple, three-step process:

- Update ESG criteria in the new investment policy using the UNPRI scorecard method developed by the City of Vancouver. If the City wanted to make a stronger statement of principle—and identify itself as the first Canadian city to make a divestment commitment—it could follow the lead of the City of Sydney and the City of Melbourne and include explicit language in its ESG policies stating that it will not invest in coal, oil, or gas companies.
- 2) Assess assets using the ESG scorecard, including both new investments under consideration and any assets currently under management. Include ESG scoring during period/annual reviews of investments, and put any "failing" investments (the City of Vancouver uses a lower threshold of 70%) on notice that they will be divested from if they do not improve their performance within a certain window of time.
- 3) Invest, divest, or exclude based on ESG scoring.

Because we do not know the City of Toronto's current holdings in either its pension funds or its directly controlled investments, we cannot estimate what percentage of funds might presently be invested (either directly or indirectly) in fossil fuel stock. Given the restrictions up until 2018 on directly controlled investments—which are the funds that the new Investment Board will manage—we imagine that the City either has no funds indirectly invested in fossil fuels, or that it has very limited amounts. Implementing this new exclusion/divestment policy will therefore be very easy from a practical perspective.

We must note, however, that we see two obstacles to implementing this decision: the ongoing legal requirements to follow the province's prudent investor standard and the political risk of making a divestment announcement in the current Canadian political environment. The first obstacle means that the City, like a pension board, must make investment decisions with regard to the fact that they are managing others' money—and they must try to maximize income and minimize risk to the principal. This could promote the similar fiduciary duty logic that keeps many municipal pension funds invested in fossil fuels.

The new Toronto Investment Board and City policymakers should bear in mind the current state of pipeline politics in Canada. At the time of writing, there is an ongoing trade dispute between Alberta and British Columbia over the Kinder Morgan Trans Mountain Pipeline which threatens to spill over into a constitutional crisis involving the federal government's jurisdiction to approve oil pipelines. Any divestment decision—especially a loud, flashy announcement of Toronto being the first city in Canada to commit to divestment—would be interpreted in this context. If Toronto wanted to pursue the complementary ESG screening route and avoid the controversy, it would be best to follow the Vancouver model of quietly updating investment policies, without making a public commitment to divestment, but de facto divesting/excluding the City's investments.

# (5) Conclusion

We will conclude by revisiting our three key research questions, this time providing an answer for each.

# 1) What is the current status of the global fossil fuel divestment movement, particularly in the public sector?

Currently, the divestment campaign has prompted nearly 100 municipalities to make divestment commitments. The divestment movement is therefore somewhere between the mid-second wave (public institutions) and early third wave (wider market) in the divestment model described above (Section 2c). As the movement grows and matures, we expect more and more municipalities to make commitments to divest. Furthermore, as the movement expands into the wider market, we expect to see more options for green bonds and fossil free funds, which in return will make it easier to divest and have a stable return for investors. Thus, in the future, pension fund boards may no longer be able to say that they cannot divest due to fiduciary duty constraints. The movement will continue to evolve, provoking more aggressive action—like lawsuits against fossil fuel companies—and expanding its focus from the Carbon Underground 200 to include indirect investments—like the citizens who put pressure on governments to stop sponsoring the industry through banks like Wells Fargo.

# 2) What is the process by which public sector municipalities have assessed their exposure, chosen to divest, and implemented this decision?

Looking at our eight case studies, it seems that most cities do not have a specific method to assess their exposure to fossil fuel assets beyond knowing how much is invested directly in fossil fuel companies (which, most often, amounts to nothing). Divestment is almost always framed as part of a city's larger environmental policies, and the decision to divest has been driven both by external advocacy and internal interest in aligning investments with the broader sustainability values of the city. Although the implementation of divestment for pension funds has faced significant hurdles—with fiduciary duty requirements as the primary obstacle–the implementation of exclusionary ESG policies has been relatively simple and straightforward for cities to accomplish.

# 3) What has been the impact of divestment—financial, environmental, and economic?

Divestment has had limited financial, environmental, and economic impacts. However, we should not disregard the social impact that the divestment campaign is having—nor how social impacts could spill over into policy and market impacts. The social license once held by the 200 targeted fossil fuel companies is being steadily eroded. No matter what impacts divestment may or may not be having, the fact that an increasing number of institutions see value in declaring themselves part of the movement is remarkable, and represents a seismic shift from just five years ago. Ultimately, we expect the movement to grow from here, and will be curious to see how mainstream fossil fuel divestment has become in five years' time.

#### **Appendix A: Interview questions**

These are the 17 key questions which we included in our evaluation matrix for each city we studied. We answered each question to the best of our ability with desktop research, then used them as the basis of our interviews with city staff and divestment campaigners.

- 1) What are the next steps/major milestones for these cities?
- 2) Where did the initial drive for divestment come from?
  - a. external pressure/advocacy from civil society?
  - b. taken up as a political cause by mayor/councillor/council faction?
  - c. internal/staff-led initiative?
- 3) What were the major obstacles to divestment?
  - a. fiduciary duty requirements?
  - b. resistance by stakeholders (e.g. pensioners)?
  - c. any political factors?
- 4) Was it total divestment or partial divestment?
  - a. just coal?
  - b. oil and gas too?
- 5) How did the city decide which firms were "carbon-intensive" and which were not?
  - a. just primary extraction/refinement?
  - b. what about direct suppliers to O&G industry?
  - c. upstream analysis?
- 6) What are the specific measures that the city undertook to implement its divestment decision?
- 7) How long did it take to implement the divestment decision?
  - a. If divestment hasn't been fully completed, then what is the timeline for divestment going forward?
- 8) What sort of investment structures does the city have?
  - a. pension funds
  - b. municipal directly controlled investments/endowments
- 9) Who is ultimately responsible for investment decisions in the city?
- 10) How much was the total value of the divestment?
- 11) What did the city do with its divested money? How was alternative investment prioritized?
- 12) Does the city include ESG principles in its investment evaluation/divestment decision?
- 13) Did the city pursue any other action against fossil fuel firms (i.e. litigation)?
- 14) How was divestment announced/framed?
  - a. loud or quiet divestment?
  - b. framed within existing city sustainability policies/initiatives?
- 15) How was the environmental impact of divestment assessed/measured? Was it assessed at all?
- 16) What has been the impact of divestment on financial performance of investment portfolio?
- 17) Has city's divestment directly inspired any private sector actors to divest as well?

## Appendix B: Contact information for interview subjects

City	Contact information		
New York	John Adler, Director Mayor's Office of Pensions & Investments NYC Department of Finance (212) 602-7111 adlerj@finance.nyc.gov Arranged interview through his executive assistant →	Michele Scilla, Special Assistant Mayor's Office of Pensions & Investments NYC Department of Finance 1 Centre Street North Tower, Suite 500 New York, NY 10007 (212) 602-7028 ScillaM@finance.nyc.gov	
Oslo	<b>Øystein Sagelvmo,</b> Treasurer Department of Finance Oslo post@opf.no	<b>Eirik Ese</b> , Adviser Department of Finance Oslo	
Washington, D.C.	Max Broad DC Divest https://www.facebook.com/dcfossilfree/		
Sydney	Chris Derksema Sustainability Director City of Sydney cderksema@cityofsydney.nsw.gov.au Skype: cderksema	<b>Bob Wallace</b> Manager of Financial Planning & Reporting City of Sydney	
Melbourne	Judith Landsberg Team Leader I Low Carbon Future Urban Sustainability I City of Melbourne   Council House 2, 240 Little Collins Street Melbourne 3000   GPO Box 1603 Melbourne 3001 T: 03 9658 8455 I M: 0427 448 913   E: judith.landsberg@melbourne.vic.gov.au		
Seattle	Nina Melencio Office Administrator Seattle City Employees' Retirement System Nina.Melencio@seattle.gov		
Vancouver	Tim Leung, Treasurer City of Vancouver 453 West 12 <sup>th</sup> Avenue Vancouver, B.C. V5Y 1V4 Direct: 604-873-7250; Fax: 604-873-7404 Email: tim.leung@vancouver.ca		
Toronto	Richard Brooks Iconic Divestment Campaigns Coordinator   350.org Toronto, Canada   416.573.7209   @richbrooks350   skype: r_c_brooks		

## Appendix C: Photo credits

Page	Description	Author	
Cover	Abandoned railroad	Antoine Beauvillian	
	https://www.pexels.com/photo/abandoned-forest-industry-nature-34950/		
3	Overgrown refinery	Michael Gaida	
	https://pixabay.com/en/architecture-industry-1640001/		
5	Divestment activists at University of Wisconsin Madison	Joe Brusky	
	https://www.flickr.com/photos/40969298@N05/13637521105		
15	Smoke stack	Patrick Hendry	
	https://unsplash.com/photos/K0b_8golPNE		
18	Forest	Jerzy Gorecki	
	https://pixabay.com/en/forest-forests-tucholski-poland-1973952/		
20	Divestment marchers	350.org	
	https://www.flickr.com/photos/350org/14125821070		
26	Big Ben, London	Bruce Mars	
	https://www.pexels.com/photo/queen-elizabeth-tower-london-769041/		
28	Washington D.C. cherry blossoms	Kyaw Tun	
	https://unsplash.com/photos/EcuErgxbAY0		
31	Seattle skyline	Jerry Meaden	
	https://www.flickr.com/photos/sworldguy/15248037137/in/album- 72157649858530652/		
32	Vancouver skyline	Bert Kaufmann	
	https://www.flickr.com/photos/22746515@N02/16346799566/in/album- 72157645466111383/		
34	Toronto City Hall	Scott Webb	
	https://www.pexels.com/photo/high-rise-buildings-on-low-angle-photography-24924/		

### Notes

1. Lee, Marc, and Justin Ritchie. "Pension Funds and Fossil Fuels." Canadian Centre for Policy Alternatives. November 17, 2015. https://www.policyalternatives.ca/publications/reports/pension-funds-and-fossil-fuels.

2. "Definition of Divestment by Oxford Dictionaries." Oxford Dictionaries. Accessed April 11, 2018. https://en.oxforddictionaries.com/definition/divestment.

3. Lee, Marc, and Justin Ritchie. "Pension Funds and Fossil Fuels." Canadian Centre for Policy Alternatives. November 17, 2015. https://www.policyalternatives.ca/publications/reports/pension-funds-and-fossil-fuels.

4. "What Is Fossil Fuel Divestment?" Fossil Free: Divestment. Accessed April 11, 2018. https://gofossilfree.org/divestment/what-is-fossil-fuel-divestment/.

5. Fossilfreeindexes.com. Accessed April 11, 2018. http://fossilfreeindexes.com/research/the-carbon-underground/

6. "Divestment Commitments: Classifications." Fossil Free. Accessed April 11, 2018. https://gofossilfree.org/divestment-commitments-classifications/.

7. Lee, Marc, and Justin Ritchie. "Pension Funds and Fossil Fuels." Canadian Centre for Policy Alternatives. November 17, 2015. https://www.policyalternatives.ca/publications/reports/pension-funds-and-fossil-fuels.

8. Dawkins, Cedric E. "Elevating the Role of Divestment in Socially Responsible Investing." *Journal of Business Ethics*, 2016. doi:10.1007/s10551-016-3356-7.

9. "Divestment has been part of the language of climate change campaigners since at least the early 1990s. Greenpeace, for example, attempted (albeit with little success) to convince the insurance industry that climate change posed a threat to the stability of future insurance markets and that its best interests lay in eschewing investments in fossil fuels and reinvesting in solar energy and energy efficiency (Leggett, 1993; Paterson, 2001)." - Ayling, Julie and Gunningham, Neil. "Non-state governance and climate policy: the fossil fuel divestment movement." *Climate Policy* Vol. 17, No. 2, 131–149. 23 October 2015. http://dx.doi.org/10.1080/14693062.2015.1094729

10. Inside Divestment: The Illiberal Movement to Turn a Generation Against Fossil Fuels. Report. National Association of Scholars. 2015. https://www.nas.org/images/documents/NAS insideDivestment fullReport.pdf

11. Ibid.

12. Ibid.

13. Koch, Wendy. "World's Cities Join Growing Push to Divest From Fossil Fuels." National Geographic. December 02, 2015. Accessed April 11, 2018. https://news.nationalgeographic.com/energy/2015/12/151202-cities-join-growing-push-to-divest-from-fossil-fuels/.

14. Ibid. particularly coal companies. pp. 27-29

15. lbid. p. 25

16. McKibben, Bill. "Global Warming's Terrifying New Math." Rolling Stone. July 19, 2012. Accessed April 11, 2018. https://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719.

17. Ibid. (donations to politicians by fossil fuel firms)

18. Ibid.

19. Carrington, Damian. "Campaign against Fossil Fuels Growing, Says Study." The Guardian. October 07, 2013. Accessed April 11, 2018. https://www.theguardian.com/environment/2013/oct/08/campaign-against-fossil-fuel-growing.

20. Inside Divestment: The Illiberal Movement to Turn a Generation Against Fossil Fuels. Report. National Association of Scholars. 2015.

https://www.nas.org/images/documents/NAS\_insideDivestment\_fullReport.pdf p. 32

21. Ibid.

22. Ibid.

23. Morgan, John. "University Fossil Fuel Divestment Total Tips £80 Billion Globally." Times Higher Education (THE). August 17, 2017. Accessed April 11, 2018.

https://www.timeshighereducation.com/news/university-fossil-fuel-divestment-total-tips-ps80-billion-globally#survey-answer.

24. "Divestment Commitments." Fossil Free: Divestment. Accessed April 11, 2018. https://gofossilfree.org/divestment/commitments/.

25. Holder, Sarah. "The Move to Get Public Money Out of Fossil Fuels Just Got a Huge Boost." CityLab. January 11, 2018. Accessed April 11, 2018. https://www.citylab.com/environment/2018/01/fossil-fuel-divestment-reaches-city-hall/550217/.

26. Henn, Jamie. "Ten U.S. Cities Now On Board with Fossil Fuel Divestment!" 350.org. April 25, 2013. Accessed April 11, 2018. https://350.org/ten-us-cities-now-board-fossil-fuel-divestment/.

27. Diamond, Randy. "San Francisco Approves Scaled-Back Divestment Plan." Chief Investment Officer. January 25, 2018. Accessed April 11, 2018. https://www.ai-cio.com/news/san-francisco-approves-scaled-back-divestment-plan/.

28. "Ann Arbor OKs Fossil Fuel Divestment." The Ann Arbor Chronicle RSS. October 22, 2013. Accessed April 11, 2018. http://annarborchronicle.com/2013/10/22/ann-arbor-oks-fossil-fuel-divestment/index.html.

29. Dickey, Andrew. "Berkeley City Council Votes to Divest from Fossil Fuel Companies." The Daily Californian. July 08, 2013. Accessed April 11, 2018. http://www.dailycal.org/2013/07/07/berkeley-city-council-votes-to-divest-from-fossil-fuel-companies/.

30. Glaze, Jeff. "Soglin Joins Other Mayors in Push to Divest Fossil Fuel Holdings." Madison.com. April 25, 2013. Accessed April 11, 2018. http://host.madison.com/news/local/govt-and-politics/paul-soglin-joins-other-mayors-in-push-to-divest-fossil/article\_a3dbec89-e915-55c6-a654-4ec01d3d54ef.html.

31. Kuffner, Alex. "Providence City Council Votes to Divest from Fossil-fuel Companies." Providencejournal.com. June 21, 2013. Accessed April 11, 2018. http://www.providencejournal.com/breaking-news/content/20130621-providence-city-council-votes-to-divest-from-fossil-fuel-companies.ece.

32. Beitsch, Rebecca. "State Lawmakers Push Pensions to Divest Fossil Fuel Holdings." The Pew Charitable Trusts. May 12, 2015. Accessed April 11, 2018. http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2015/5/12/state-lawmakers-push-pensions-to-divest-fossil-fuel-holdings.

33. Phillips, Ari. "Netherlands Town Becomes First In Europe To Vow Fossil Fuel Divestment." ThinkProgress. October 31, 2013. Accessed April 11, 2018. https://thinkprogress.org/netherlands-town-becomes-first-in-europe-to-vow-fossil-fuel-divestment-a4027e285b4b/.

34. Puiu, Tibi. "Fossil Fuel Divestment Movement Gathers Momentum." ZME Science. November 05, 2014. Accessed April 11, 2018. https://www.zmescience.com/ecology/environmental-issues/fossil-fuel-divestment-0534543/.

35. "Historic Commitment from Oxford City Council!" Fossil Free UK. September 16, 2014. Accessed April 11, 2018. https://gofossilfree.org/uk/historic-commitment-from-oxford-city-council/.

36. "City of Fremantle to Divest from Carbon Intensive Investments." City of Fremantle Mayor Brad Pettitt's Blog. November 14, 2014. Accessed April 11, 2018. https://cofremantle.wordpress.com/2014/11/14/city-of-fremantle-to-divest-from-carbon-intensive-investments/.

37. "New Zealand City to Divest from Fossil Fuels." FSRN Free Speech Radio News. March 1, 2015. Accessed April 11, 2018. https://fsrn.org/2015/05/new-zealand-city-to-divest-from-fossil-fuels/.

38. Goldenberg, Suzanne. "Heirs to Rockefeller Oil Fortune Divest from Fossil Fuels over Climate Change." The Guardian. September 22, 2014. Accessed April 11, 2018. https://www.theguardian.com/environment/2014/sep/22/rockefeller-heirs-divest-fossil-fuels-climate-change.

39. McIlroy, Tom. "ACT's Speedy Fossil Fuel Divestment Wins Praise." Canberra Times. November 05, 2015. Accessed April 11, 2018. http://www.canberratimes.com.au/act-news/act-government-fossil-fuel-divestment-speed-wins-praise-from-environmental-campaigners-20151105-gkr8wh.html.

40. Jewel, Cameron. "Melbourne Takes Nuanced Approach to Divestment as Movement Steps up a Gear." Eco-Business. November 3, 2015. Accessed April 11, 2018. http://www.eco-business.com/news/melbourne-takes-nuanced-approach-to-divestment-as-movement-steps-up-agear/.

41. Hill, Joshua S. "Oslo Becomes First Capital City To Divest From Fossil Fuels." CleanTechnica. October 20, 2015. Accessed April 11, 2018. https://cleantechnica.com/2015/10/20/oslo-becomes-first-capital-city-divest-fossil-fuels/.

42. Dohle, Mona. "Münster First German City to Divest from Fossil Fuels." Investment Europe. November 05, 2015. Accessed April 11, 2018. http://www.investmenteurope.net/regions/germany/munster-first-german-city-to-divest-from-fossil-fuels/.

43. Koch, Wendy. "World's Cities Join Growing Push to Divest From Fossil Fuels." National Geographic. December 02, 2015. Accessed April 11, 2018. https://news.nationalgeographic.com/energy/2015/12/151202-cities-join-growing-push-to-divest-from-fossil-fuels/.

44. Simon-Lewis, Alexandra. "What Is the Paris Climate Agreement and Who Has Signed It?" WIRED. November 07, 2017. Accessed April 11, 2018. http://www.wired.co.uk/article/what-is-paris-agreement-on-climate-change.

45. "Washington, D.C., Announces Divestment of \$6.4 Billion Pension Fund From Oil, Gas, and Coal Companies." Common Dreams. June 06, 2016. Accessed April 11, 2018. https://www.commondreams.org/newswire/2016/06/06/washington-dc-announces-divestment-64-billion-pension-fund-oil-gas-and-coal.

46. Kaufman, Alexander C. "Berlin Is The Latest City To Pull Out Of Fossil Fuels." HuffPost Canada. June 23, 2016. Accessed April 11, 2018. http://www.huffingtonpost.ca/entry/berlin-fossil-fuels-divest\_us\_576bf316e4b08cbaeab18794.

47. Mattauch, Melanie. "Copenhagen Bans Investments in Coal, Oil and Gas." Fossil Free Europe. April 29, 2016. Accessed April 11, 2018. https://gofossilfree.org/europe/press-release/copenhagen-bans-investments-in-coal-oil-and-gas/.

48. "Stuttgart Pulls out of Fossil Fuels." Fossil Free. July 20, 2016. Accessed April 11, 2018. https://gofossilfree.org/stuttgart-pulls-out-of-fossil-fuels/.

49. "Stockholm Divest from Coal, Oil and Gas." Fossil Free Europe. June 15, 2016. Accessed April 11, 2018. https://gofossilfree.org/europe/press-release/stockholm-divest-from-coal-oil-and-gas/.

50. Vaughan, Adam. "Zac Goldsmith Backs Fossil Fuel Divestment Movement." The Guardian. April 22, 2016. Accessed April 11, 2018. https://www.theguardian.com/environment/2016/apr/22/zac-goldsmith-backs-fossil-fuel-divestment-movement-london-mayor.

51. Slezak, Michael. "City of Sydney Council to Divest from Fossil Fuels Regardless of Election Result." The Guardian. September 06, 2016. Accessed April 11, 2018. https://www.theguardian.com/environment/2016/sep/06/city-of-sydney-council-divest-fossil-fuels-regardless-election-result.

52. "Auckland Council Pulls Funding from Oil, Gas, Coal Companies." Scoop - Independent News. April 11, 2017. Accessed April 11, 2018. http://www.scoop.co.nz/stories/PO1704/S00119/auckland-council-pulls-funding-from-oil-gas-coal-companies.htm.

53. Fontaine, Tom. "Ending Pittsburgh's Fossil Fuel Pension Investments Wouldn't Be Easy or Cheap." TribLIVE.com. June 19, 2017. Accessed April 11, 2018. http://triblive.com/local/allegheny/12389026-74/ending-pittsburghs-fossil-fuel-pension-investments-wouldnt-be-easy-or-cheap.

54. "How Cape Town Committed to Divest." 350 Africa. December 18, 2017. Accessed April 11, 2018. https://350africa.org/how-cape-town-committed-to-divest/.

55. Milman, Oliver. "'A Really Big Deal': New York City's Fossil Fuel Divestment Could Spur Global Shift." The Guardian. January 11, 2018. Accessed April 11, 2018. https://www.theguardian.com/us-news/2018/jan/11/new-york-city-fossil-fuel-divestment-spur-global-movement.

56. Pfefferle, Tim. "Why 2018 Is The Year That Divestment Is Finally Going Mainstream." CleanTechnica. February 20, 2018. Accessed April 11, 2018. https://cleantechnica.com/2018/02/20/2018-year-divestment-finally-going-mainstream/.

57. Ansar, A, BL Caldecott, and J Tilbury. 2013. "Stranded Assets and the Fossil Fuel Divestment Campaign: What Does Divestment Mean for the Valuation of Fossil Fuel Assets?" Smith School of Enterprise and the Environment, University of Oxford.

58. Hunt, Chelsie, Olaf Weber, and Truzaar Dordi. "A comparative analysis of the anti-Apartheid and fossil fuel divestment campaigns." Journal of Sustainable Finance & Investment 7. 2017: 64-81.

59. Ibid.

60. Divestment from fossil fuel companies: Confluence between policy and strategic viewpoints (Martina K Linnenluecke, Cristyn Meath, Saphira Rekker, Baljit K Sidhu, Tom Smith) *Australian Journal of Management* Vol 40, Issue 3, pp. 478 - 487. https://doi-org.myaccess.library.utoronto.ca/10.1177/031289621556979

61. Dawkins, Cedric E. "Elevating the Role of Divestment in Socially Responsible Investing." Journal of Business Ethics (2016): 1-14.

62. Kaempfer, William H., James A. Lehman, and Anton D. Lowenberg. "Divestment, Investment Sanctions, and Disinvestment: An Evaluation of Anti-apartheid Policy Instruments." The MIT Press 41, no. 03 (1987). doi:10.1017/s0020818300027545.

63. Ibid.

64. Ibid.

65. Note – citations 65/66 were removed during the final proofreading/design phase of the project, and we were not able to remove them without affecting all of the other citations in this document. We continue numbering from 67 as before.

66. See note 65 above.

67. Ansar, A, BL Caldecott, and J Tilbury. 2013. "Stranded Assets and the Fossil Fuel Divestment Campaign: What Does Divestment Mean for the Valuation of Fossil Fuel Assets?" Smith School of Enterprise and the Environment, University of Oxford.

68. Ibid.

69. Gertler, Meric. "Beyond Divestment: Taking Decisive Action on Climate Change." University of Toronto, March 2016. p. 42 http://www.president.utoronto.ca/beyond-divestment-taking-decisive-action-on-climate-change p. 13

70. Chiose, Simona. "U of T rejects recommendation to divest from fossil fuels." *The Globe and Mail*, 30 March 2016. Access Date: 20 March 2018. https://www.theglobeandmail.com/news/national/u-of-t-rejects-recommendation-to-divest-from-fossil-fuels/article29426921/

71. Karney et al. p. 1

72. "Policy on Social and Political Issues With Respect to University Divestment." U of T, 4 March 2008.

http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/Policy/ppmar042008.pdf

- 73. Karney et al. p. 2
- 74. Karney et al. p. 3
- 75. Karney et al. p. 7
- 76. Karney et al pp. 3-4
- 77. Karney et al. pp 4-5

78. Franta, Benjamin A. "On Divestment, Adopt the Toronto Principle." *The Harvard Crimson*, 8 February 2016. http://www.thecrimson.com/article/2016/2/8/franta-divestment-toronto-principle/

79. Gertler, Meric. "Beyond Divestment: Taking Decisive Action on Climate Change." University of Toronto, March 2016. http://www.president.utoronto.ca/beyond-divestment-taking-decisive-action-on-climate-change

80. lbid. pp. 11-12

81. lbid p. 11

82. lbid, p. 15

83. *UTAM Annual Report 2016.* Report. University of Toronto Asset Management Corporation, University of Toronto. 2017.

84. *Responsible Investing Report 2016.* Report. University of Toronto Asset Management Corporation, University of Toronto. 2017.

85. Gertler, Meric. "Beyond Divestment: Taking Decisive Action on Climate Change." University of Toronto, March 2016. http://www.president.utoronto.ca/beyond-divestment-taking-decisive-action-on-climate-change

86. Dawkins, Cedric E. "Elevating the Role of Divestment in Socially Responsible Investing." *Journal of Business Ethics*, 2016. doi:10.1007/s10551-016-3356-7.

87. Ibid. "Investors employing the best-of-class screening strategy attempt to influence firms by building a portfolio that favors stocks of firms with good ESG records, but does not spurn the stock of any particular firm or industry, even the worst ESG performers. Engagement practices and forms vary from writing letters to meetings with senior managers, and measures of success differ as well. It is a hybrid positive screening strategy because rather than excluding any particular behavior, firms are compared with peers that encounter the same challenges and investors patronize those with the best conduct."

88. Ibid. "Proponents of best-of-class screening have reasoned that divesting from offending firms cuts off other forms of engagement, and it is preferable to reward the best performing companies in an industry and allow the subsequent market pressure to influence the worst performers...Best-of-class engagement provides investors the opportunity to remain invested in profitable firms, and use the carrot to improve performance rather than the stick."

89. Dawkins, Cedric E. "Elevating the Role of Divestment in Socially Responsible Investing." *Journal of Business Ethics*, 2016. doi:10.1007/s10551-016-3356-7. Also see p. 2: "best-of-class engagement is more ethically vigorous when it is viewed in symbiotic relation to the foundation of divestment, and it is important, ethically and pragmatically, to maintain and defend the divestment strategy."

90. Ibid. See p. 2 he cites landmine production and human trafficking as clear examples of morally unacceptable conduct that there is an international consensus not to support with investment.

91. Ibid.For more information see p. 8

92. Fossil Fuel Divestment and a "just Transition"." Energy Policy 108 (June 2017): 451-59. doi:10.1016/j.enpol.2017.06.014.

93. Franta, Benjamin. "Litigation in the Fossil Fuel Divestment Movement." *Law & Policy* 39, no. 4 (2017): 393-411. doi:10.1111/lapo.12086.

94. Ibid.

95. Ibid.

96. "Revoke the social license of the fossil fuel industry" is listed as the very first tactic of the divestment movement on 350.org https://350.org/about/

97. "About 350.org." 350.org. Accessed April 11, 2018. https://350.org/about/.

98. Hunt, Chelsie, Olaf Weber, and Truzaar Dordi. "A comparative analysis of the anti-Apartheid and fossil fuel divestment campaigns." Journal of Sustainable Finance & Investment 7. 2017: 64-81.

99. Ritchie, J., and H. Dowlatabadi. "What Divesting May Yield: Revisiting "The Grasshopper and the Ant" in the Context of University Endowments." *Journal of Environmental Investing* 6, no. 1 (2015): 51-74.

100. Fossil Fuel Divestment Report. Report. Genus Capital Management Inc. 2017.

101. Ritchie, Justin, and H. Dowlatabadi. "Divest from the carbon bubble? Reviewing the implications and limitations of fossil fuel divestment for institutional investors." *Rev. Econ. Finance* 5 (2015): 59-80.

102. Lee, Marc, and Justin Ritchie. "Pension Funds and Fossil Fuels." Canadian Centre for Policy Alternatives. November 17, 2015. https://www.policyalternatives.ca/publications/reports/pension-funds-and-fossil-fuels.

103. Mattauch, Melanie. "Keep it in the ground! Just how much exactly?" 350.org, 9 May 2016. Accessed 11 April 2018. https://350.org/keep-it-in-the-ground-just-how-much-exactly/

104. "Many of the world's biggest oil companies, meanwhile, are owned by the governments of Saudi Arabia, Venezuela, Iran, and Iraq. They are thus shielded from the campaign because their shares aren't traded on public markets."

https://e360.yale.edu/features/why\_the\_fossil\_fuel\_divestment\_movement\_may\_ultimately\_win

105. Oxford report, p. 66

106. Ansar, A, BL Caldecott, and J Tilbury. 2013. "Stranded Assets and the Fossil Fuel Divestment Campaign: What Does Divestment Mean for the Valuation of Fossil Fuel Assets?" Smith School of Enterprise and the Environment, University of Oxford.

107. "The Top 200 Fossil Fuel Companies." Fossil Free. Accessed April 11, 2018. https://gofossilfree.org/top-200/.

108. "The Carbon Underground 200TM 2017 Edition." Accessed April 11, 2018. http://fossilfreeindexes.com/research/the-carbon-underground/.

109. Ansar, A, BL Caldecott, and J Tilbury. 2013. "Stranded Assets and the Fossil Fuel Divestment Campaign: What Does Divestment Mean for the Valuation of Fossil Fuel Assets?" Smith School of Enterprise and the Environment, University of Oxford.

110. Dawkins, p. 7 For example, major U.S. banks have rejected calls to divest of fossil fuel stocks, but a number of them have taken the unanticipated lesser step of refusing to finance mountain top removal coal mining (Sorkin 2015)

111. Adler, Ben. "The Divestment Movement Is Gaining Steam. What Can It Achieve?" Grist. October 15, 2014. Accessed April 11, 2018. https://grist.org/climate-energy/the-divestment-movement-is-gaining-steam-what-can-it-achieve/ - "Divestment campaigns can also force concessions from large institutional investors that help the transition to a clean energy economy. They might not divest fully from fossil fuels but increase investments in renewable energy to mollify activists. Harvard President Drew Faust, for example, refused to divest the school's \$36 billion endowment from fossil fuels, but six months later she announced a series of initiatives such as raising money for climate change research, efforts to reduce the school's greenhouse gas emissions, and the adoption of guidelines for taking environmental impact into consideration for the endowment's investment decisions."

112. Ansar, A, BL Caldecott, and J Tilbury. 2013. "Stranded Assets and the Fossil Fuel Divestment Campaign: What Does Divestment Mean for the Valuation of Fossil Fuel Assets?" Smith School of Enterprise and the Environment, University of Oxford.

113. Ibid.

114. Ibid.

115. MacAskill, William. "Does Divestment Work?" The New Yorker. June 19, 2017. Accessed April 11, 2018. https://www.newyorker.com/business/currency/does-divestment-work.

116. Adler, Ben. "The Divestment Movement Is Gaining Steam. What Can It Achieve?" Grist. October 15, 2014. Accessed April 11, 2018. https://grist.org/climate-energy/the-divestment-movement-is-gaining-steam-what-can-it-achieve/.

117. Ansar, A, BL Caldecott, and J Tilbury. 2013. "Stranded Assets and the Fossil Fuel Divestment Campaign: What Does Divestment Mean for the Valuation of Fossil Fuel Assets?" Smith School of Enterprise and the Environment, University of Oxford.

118. lbid. p. 13

119. Gunther, Marc. "Why the Fossil Fuel Divestment Movement May Ultimately Win." Yale Environment 360. July 27, 2015. Accessed April 11, 2018. https://e360.yale.edu/features/why\_the\_fossil\_fuel\_divestment\_movement\_may\_ultimately\_win.

120. Howard, Emma. "The Rise and Rise of the Fossil Fuel Divestment Movement." The Guardian. May 19, 2015. Accessed April 11, 2018. https://www.theguardian.com/environment/2015/may/19/the-rise-and-rise-of-the-fossil-fuel-divestment-movement.

121. Ansar, A, BL Caldecott, and J Tilbury. 2013. "Stranded Assets and the Fossil Fuel Divestment Campaign: What Does Divestment Mean for the Valuation of Fossil Fuel Assets?" Smith School of Enterprise and the Environment, University of Oxford.

122. Adler, Ben. "The Divestment Movement Is Gaining Steam. What Can It Achieve?" Grist. October 15, 2014. Accessed April 11, 2018. https://grist.org/climate-energy/the-divestment-movement-is-gaining-steam-what-can-it-achieve/.

123. Schifeling, Todd, and Andrew J. Hoffman. "Bill McKibben's Influence on U.S. Climate Change Discourse: Shifting Field-Level Debates Through Radical Flank Effects." *Organization & Environment*, November 30, 2017. doi:10.1177/1086026617744278.

124. Ibid.

125. Ibid.

126. "Shell CEO Urges Switch to Clean Energy as Plans Hefty Renewable..." Reuters. March 09, 2017. Accessed April 12, 2018. https://www.reuters.com/article/us-ceraweek-shell-shell/shell-ceo-urges-switch-to-clean-energy-as-plans-hefty-renewable-spending-idUSKBN16G2DT.

127. Gunther, Marc. "Why the Fossil Fuel Divestment Movement May Ultimately Win." Yale Environment 360. July 27, 2015. Accessed April 11, 2018. https://e360.yale.edu/features/why\_the\_fossil\_fuel\_divestment\_movement\_may\_ultimately\_win.

128. See Section 2a for definitions of full vs. partial divestment and divestment vs. exclusion.

129. NYC Planning. "Current Estimates of New York City's Population for July 2017." Accessed 11 April 2018. http://www1.nyc.gov/site/planning/data-maps/nyc-population/current-future-populations.page

130. Neuman, William. "To Fight Climate Change, New York City Takes On Oil Companies." *The New York Times*, 10 January 2018. Accessed 11 April 2018. https://www.nytimes.com/2018/01/10/nyregion/new-york-city-fossil-fuel-divestment.html

131. Romer, Nancy. "How New York City Won Divestment From Fossil Fuels." *Buzzflash*, 5 March 2018. Accessed 11 April 2018. http://buzzflash.com/commentary/how-new-york-city-won-divestment-from-fossil-fuels

132. City of New York press release. "Climate Action: Mayor, Comptroller, Trustees Announce First-In-The-Nation Goal to Divest From Fossil Fuels." 10 January 2018. Accessed 11 April 2018 - "The City will be seeking damages from BP, Chevron, ConocoPhillips, Exxon Mobil, and Royal Dutch Shell for the billions of dollars the City will spend to protect New Yorkers from the effects of climate change. This includes damages to pay for harm that we've already seen and damages that are necessary to address harm we expect to happen over the course of this century...Recently uncovered documents make it clear that the fossil fuel industry was well aware of the effects that burning fossil fuels would have on the planet's atmosphere and the expected impacts of climate change as far back as at least the 1980s. Nonetheless, they deliberately engaged in a campaign of deception and denial about global warming and its impacts, even while profiting from the sale of fossil fuels and protecting their own assets from the effects of rising seas and a changing climate."

133. Ibid. - "The first step is for the trustees at each fund to instruct the Office of the City Comptroller's Bureau of Asset Management (BAM) to commission an analysis of the proposed divestment and advise the trustees as to the anticipated impact on the risk and return characteristics of the portfolio. The trustees will also seek legal opinion as to whether carrying out the divestment would be consistent with trustees fiduciary duties to beneficiaries. Assuming a positive legal opinion, the trustees would then instruct BAM to carry out the divestment with specified steps and timelines. In the case of this divestment, transactions would likely be carried out in stages in order to reduce transaction and implementation costs."

134. Muoio, Danielle. "Divesting from Big Oil a tough sell — even in the bluest cities and states." Politico, 7 March 2018. Accessed 11 April 2018. https://www.politico.com/states/new-york/albany/story/2018/03/07/divesting-from-big-oil-a-tough-sell-even-in-the-bluest-cities-and-states-303119

135. Schlanger, Zoë. "BILL DE BLASIO BEGINS PUSH TO DIVEST NEW YORK CITY COAL INVESTMENTS." *Newsweek*, 29 September 2015. Accessed 11 April 2018. http://www.newsweek.com/coal-divestment-new-york-city-pension-funds-de-blasio-377915

136. "London Assembly Calls on Mayor to Set out Fossil Fuel Divestment Plan." Fossil Free UK. December 7, 2016. Accessed April 10, 2018. https://gofossilfree.org/uk/press-release/london-assembly-calls-on-mayor-to-set-out-fossil-fuel-divestment-plan/.

137. LPFA. "Investment Strategy Statement." News release, October 2016. https://www.lpfa.org.uk/Admin/Public/DWSDownload.aspx?File=/Files/Files/2016 ISS.pdf.

138. "LPFA Policy on Climate Change." LPFA. 2017. https://www.lpfa.org.uk/Admin/Public/DWSDownload.aspx?File...Climate Change.

139. "Mayor Calls for Boroughs to Ditch Fossil Fuel Investment." London City Hall. March 26, 2018. Accessed April 11, 2018. https://www.london.gov.uk/press-releases/mayoral/mayor-calls-for-boroughs-to-divest-pension-funds.

140. Carrington, Damian. "Oslo Divests from Coal Companies." The Guardian. March 02, 2015. Accessed April 10, 2018. https://www.theguardian.com/environment/2015/mar/02/oslo-divests-from-coal-companies.

141. "Oslo's \$9.3 Bln Pension Fund to Pull out from Oil, Gas Firms." Reuters. October 19, 2015. Accessed April 10, 2018. https://www.reuters.com/article/norway-divestiture-idUSL8N12J2LG20151019.

142. Government of Norway. "Guidelines for Observation and Exclusion from the Government Pension Fund Global." News release, February 17, 2017. Regjeringen.no. https://www.regjeringen.no/globalassets/upload/fin/statens-pensjonsfond/formelt-grunnlag/guidelines-for-observation-and-exclusion-from-the-gpfg---17.2.2017.pdf.

143. Sagelvmo, Oystein, and Eirik Ese. "Oslo Divestment." E-mail message to author. March 12, 2018.

144. "Slik Vurderer Vi Klimarisiko." Oslo Pensjonsforsikring. Accessed April 10, 2018. https://www.opf.no/info/om-oss/klima/lavere-co2-utslipp/slik-vurderer-vi-klimarisiko/.

145. Hirji, Zahra. "Washington D.C. Adds Its Largest Public Pension to the Fossil Fuel Divestment Movement." InsideClimate News. June 6, 2016. https://insideclimatenews.org/news/06062016/washington-dc-pension-fund-announces-divestment

146. DCRB. "Environmental, Social, and Governance Policy Statement Approved by the Board of Trustees." News release, November 21, 2013. DCRB. https://dcrb.dc.gov/sites/default/files/dc/sites/dcrb/publication/attachments/ESG Policy Statement.pdf.

147. DCRB. "Statement on Council of the District of Columbia's Fossil Fuel Divestment Recognition Resolution of 2016." News release, June 9, 2016. District of Columbia Retirement Board. https://dcrb.dc.gov/sites/default/files/dc/sites/dcrb/publication/attachments/DCRB\_Statement\_on\_DC\_Council\_Fossil Fuel\_Res\_2016\_0.pdf.

148. Broad, Max. "DC Divest." Telephone interview by author. March 23, 2018.

149. Unless otherwise noted, information in this section comes from a phone conversation with Chris Derksema, Sustainability Manager, and Bob Wallace, Manager Financial Planning and Reporting, City of Sydney.

150. Australian Bureau of Statistics, "Sydney population hits 5 million," 30 March 2017. Accessed 11 April 2018. http://abs.gov.au/ausstats/abs@.nsf/lookup/3218.0Media%20Release12015-16

151. Moore, Clover. "Strengthening Our Approach to Divestment." https://www.clovermoore.com.au/strengthening\_our\_divestment

152. City of Sydney. "Investment Policy." October 2017. Accessed 18 April 2018. p. 13 http://www.cityofsydney.nsw.gov.au/\_\_data/assets/pdf\_file/0011/136496/Investment-Policy-October-2017.pdf

153. Slezak, Michael. "City of Sydney council to divest from fossil fuels regardless of election result." The Guardian, 6 September 2016. Accessed 11 April 2018. https://www.theguardian.com/environment/2016/sep/06/city-of-sydney-council-divest-fossil-fuels-regardless-election-result

154. City of Sydney. "Council - 15 August 2016 - Item 3.1 - Fossil Fuel Divestment." Accessed 11 April 2018.

https://meetings.cityofsydney.nsw.gov.au/Data/Council/20160815/Agenda/160815\_council\_item31.pdf - "Councils are not permitted to invest in equities and therefore not permitted to invest directly in individual companies. The City has never directly invested in a fossil fuel project."

155. Chris Derksema: "We give preference to sustainable investments if they match the investment performance, maturity, etc. of other investments. So when we were place an investment, we look first to see if there's anything around—often there's not, and then we make our investment decision. So we did not withdraw any funds but future investments we applied a different criteria to going forward."

156. Go Fossil Free. "How we got Australia's biggest city to divest." 11 October 2016. Accessed 11 April 2018. https://gofossilfree.org/how-we-got-australias-biggest-city-to-divest/

157. City of Sydney. "Council - 15 August 2016 - Item 3.1 - Fossil Fuel Divestment." Accessed 11 April 2018.

https://meetings.cityofsydney.nsw.gov.au/Data/Council/20160815/Agenda/160815\_council\_item31.pdf

158. City of Sydney. "Council - 15 August 2016 - Item 3.1 - Attachment A - Fossil Fuel Divestment. LETTER TO MR BRIAN HARTZER, CHIEF EXECUTIVE OFFICER, WESTPAC, DATED 2 AUGUST 2016." Accessed 11 April 2018.

https://meetings.cityofsydney.nsw.gov.au/Data/Council/20160815/Agenda/160815\_council\_item31\_att achmenta.pdf#search=%22divest%22

159. Conroy, John. "Inner Sydney council to divest from fossil fuels." 29 January 2015. Accessed 11 April 2018, https://www.theaustralian.com.au/business/business-spectator/inner-sydney-council-to-divest-from-fossil-fuels/news-story/177a026801f4c767af0224bb00b79efb

160. 350 Australia. "One of Sydney's largest councils divests from fossil fuels." 23 March 2016. Accessed 18 April 2018. https://350.org.au/press-release/one-of-sydneys-largest-councils-divests-from-fossil-fuels/

161. Most up-to-date information in this section came from a conversation with Judith Landsberg, Team Leader, Low Carbon Future, Urban Sustainability, City of Melbourne

162. City of Melbourne. "Annual Report 2016-2017." See p. 172 for term deposits under three months (approx. AUD \$67m) and p. 174 for term deposits over three months (approx. AUD \$28m). Accessed 11 April 2018. https://www.melbourne.vic.gov.au/sitecollectiondocuments/annual-report-2016-17.pdf

163. Australian Bureau of Statistics. "Greater Melbourne." Accessed 11 April 2018. http://stat.abs.gov.au/itt/r.jsp?RegionSummary&region=2GMEL&dataset=ABS\_REGIONAL\_ASGS&g eoconcept=REGION&datasetASGS=ABS\_REGIONAL\_ASGS&datasetLGA=ABS\_NRP9\_LGA&regio nLGA=REGION&regionASGS=REGION

164. Jewell, Cameron. "Melbourne takes nuanced approach to divestment as movement steps up a gear." *The Fifth Estate*. 29 October 2015. Accessed 11 April 2018. https://www.thefifthestate.com.au/business/investment-deals/melbourne-takes-nuanced-approach-to-divestment-as-movement-kicks-into-gear

165. City of Melbourne. "Notice of Motion, Cr Arron Wood: City of Melbourne Clean Energy Investments," October 2015. Accessed 11 April 2018. http://www.melbourne.vic.gov.au/aboutcouncil/committees-meetings/meeting-

archive/meetingagendaitemattachments/706/12791/oct15%20ccl%20agenda%20item%207.4.pdf

166. Ibid.

167. Saunders, Amanda. "City of Melbourne steps up anti-coal push and education union divests." *The Sydney Morning Herald*, 27 October 2015. Accessed 11 April 2018. https://www.smh.com.au/business/companies/city-of-melbourne-steps-up-anticoal-push-and-education-union-divests-20151026-gkir66.html

168. "Melbourne council joins divestment ranks." *Adelaide Now*. 10 October 2014. Accessed 11 April 2018. http://www.adelaidenow.com.au/business/breaking-news/melbourne-council-joins-divestment-ranks/news-story/c311aed3ad52b15c1416f49468350a3d?sv=1014b2d5e3162bba2053e0c54cd0e3a8

169. "Seattle Mayor Orders City to Divest from Fossil Fuels." 350.org. December 22, 2012. Accessed April 10, 2018. https://350.org/seattle-mayor-orders-city-divest-fossil-fuels/.

170. Ibid.

171. Monaco, Michael. "Legal Permissibility of Environmental, Social and Governance ('ESG') Investment Proposals." Received by Board of Administration Seattle City Employees' Retirement System, *SCC Insight*, 13 July 2017, sccinsight.com/wp-content/uploads/2017/07/ESG-Comprehensive-Follow-Up-Analysis-July-2017-00172659xBADF5.pdf.

172. Stracke, Don, et al. "Fossil Fuel Divestment." Received by SCERS Board and Staff, 12 Nov. 2014.

173. Seattle City Employees' Retirement System ESG Quarterly Update: First Quarter 2018, 31 Dec. 2017. www.seattle.gov/Documents/Departments/Retirement/Publications/performance/ESG Updates/ESG\_Report\_2018Q1.pdf.

174. Ibid.

175. Mapes, Lynda V. "Seattle Employees Pension Fund Won't Divest from Fossil Fuels." *The Seattle Times*, 13 July 2017, www.seattletimes.com/seattle-news/environment/seattle-employees-pension-fund-wont-divest-from-fossil-fuels/

176. Mapes, Lynda V. "Divestment Is Our Goal': Seattle City Council to Vote on Pulling \$3 Billion from Wells Fargo over Dakota Access Pipeline." The Seattle Times, 2 Feb. 2017. www.seattletimes.com/seattle-news/environment/protesters-call-for-seattles-billions-to-be-pulled-from-wells-fargo-over-dakota-access-pipeline/

177. Unless otherwise indicated, all information in this section comes from Vancouver City Treasurer Tim Leung.

178. City of Vancouver. "2016 Annual financial report." see p. 15 for investment information. Accessed 11 April 2018. http://vancouver.ca/files/cov/2016-annual-financial-report.pdf

179. Statistics Canada. "Population of census metropolitan areas." Accessed 11 April 2018. http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo05a-eng.htm

180. City of Vancouver. "Report - Responsible Investment Screening Process: 2016 May 03." Accessed 11 April 2018. http://council.vancouver.ca/20160503/documents/a8.pdf

181. Government of British Columbia. "Vancouver Charter." Section 201. Accessed 11 April 2018. http://www.bclaws.ca/civix/document/id/lc/statreg/vanch\_04#section201

182. Baldwin, Bob. "Municipal Employee Pension Plans in Canada: An Overview, IMFG Papers on Municipal Finance and Governance, Munk School of Global Affairs, University of Toronto." 2015. Accessed April 11, 2018.

https://munkschool.utoronto.ca/imfg/uploads/331/imfg\_no23\_pensionplans\_bobbaldwin.pdf

183. Internal City of Toronto file provided by client. "Attachment 2 - Asset Allocations by City Legacy Pensions to Equities." EX 29.6 (attch. to "Report for Action - New City of Toronto Investment Policy," 15 November 2017.) https://www.toronto.ca/legdocs/mmis/2017/ex/bgrd/backgroundfile-109146.pdf

184. All information in this section comes from "Investments." City of Toronto. November 02, 2017. Accessed April 11, 2018. https://www.toronto.ca/city-government/budget-finances/city-finance/investments/

185. Ibid.

186. "Report for Action - Establishment of an Investment Board," City of Toronto EX23.2. 21 February 2017. https://www.toronto.ca/legdocs/mmis/2017/ex/bgrd/backgroundfile-101438.pdf

187. City of Toronto, "New City of Toronto Investment Policy," 5 December 2017. http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.EX29.6

188. City of Toronto, "STATEMENT OF INVESTMENT POLICY AND PROCEDURES FOR THE THE CITY OF TORONTO INVESTMENT FUNDS." 5 December 2017. Accessed 11 April 2018. p. 22 https://www.toronto.ca/legdocs/mmis/2017/ex/bgrd/backgroundfile-109145.pdf

189. Ibid. p.23