# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>2</td>
</tr>
<tr>
<td>Overview</td>
<td>3</td>
</tr>
<tr>
<td>Giving Green’s research</td>
<td>4</td>
</tr>
<tr>
<td><strong>Sunrise Movement in the Political Context of 21st Century US Climate Policy</strong></td>
<td>4</td>
</tr>
<tr>
<td>Cap-and-trade</td>
<td>4</td>
</tr>
<tr>
<td>Transitioning from the Trump administration to the Biden administration</td>
<td>5</td>
</tr>
<tr>
<td>The Green New Deal</td>
<td>5</td>
</tr>
<tr>
<td><strong>Sunrise Movement’s Organization</strong></td>
<td>6</td>
</tr>
<tr>
<td>History of Sunrise</td>
<td>6</td>
</tr>
<tr>
<td>Organizational structure</td>
<td>6</td>
</tr>
<tr>
<td>Strategy &amp; “frontloading”</td>
<td>7</td>
</tr>
<tr>
<td>Budget &amp; funding needs</td>
<td>7</td>
</tr>
<tr>
<td><strong>Sunrise Movement’s Theory of Change</strong></td>
<td>8</td>
</tr>
<tr>
<td>Sunrise Movement’s tactics</td>
<td>8</td>
</tr>
<tr>
<td>Sunrise Movement’s desired outcomes</td>
<td>11</td>
</tr>
<tr>
<td><strong>Examining the Assumptions behind Sunrise’s Theory of Change</strong></td>
<td>13</td>
</tr>
<tr>
<td>Assumptions linking campaign building to directed action</td>
<td>13</td>
</tr>
<tr>
<td>Assumptions linking directed action to initial changes</td>
<td>16</td>
</tr>
<tr>
<td>Assumptions linking initial changes to legislative changes</td>
<td>20</td>
</tr>
<tr>
<td>Assumptions linking legislative changes to reduced greenhouse gas concentrations</td>
<td>23</td>
</tr>
<tr>
<td><strong>Sunrise Movement’s Cost-Effectiveness</strong></td>
<td>23</td>
</tr>
<tr>
<td>Overview</td>
<td>23</td>
</tr>
<tr>
<td>Methods</td>
<td>24</td>
</tr>
<tr>
<td>Results</td>
<td>26</td>
</tr>
<tr>
<td>Discussion of potential negative impacts</td>
<td>27</td>
</tr>
<tr>
<td>Conclusion</td>
<td>28</td>
</tr>
<tr>
<td><strong>Bibliography</strong></td>
<td>28</td>
</tr>
</tbody>
</table>

This work is preliminary, and subject to change. Questions and comments are welcome at givinggreen@idinsight.org. Last updated November 15, 2021.
Executive Summary

In this document, we provide a close look of the Sunrise Movement, including its context, tactics and activities, and theory of change. We also provide an overview of Sunrise’s budget and funding needs, and we describe a quantitative cost-effectiveness analysis (CEA) model that assesses the organization’s marginal impact. Although Giving Green only considers recommendations for 501(c)3 nonprofits in the United States, we describe our research findings on the activities and outputs of the Sunrise Movement as a whole, which includes contributions from three separate legal entities (which has 501(c)(3), 501(c)(4), and PAC branches).

Since forming in 2017, the Sunrise Movement has been the primary organizer and driver of climate-focused activism in the United States. Sunrise first gained prominence with its attention-grabbing engineered confrontations between youth activists and elected officials in 2018 and 2019. In the lead up to the 2020 elections, Sunrise’s voter outreach efforts reached more than 8 million voters, contributing to the largest youth voter turnout in U.S. history. Sunrise’s original strategy was oriented around building a movement that would ensure climate policies were passed once a favorable political environment was presented. In 2021, with a Democratic trifecta in the House, Senate, and presidency, and major climate legislation being debated in Congress, they are essentially at the end of this initial strategy.

In 2021, Sunrise has been publicly fighting for federal climate legislation - while Sunrise’s initial demands are far from being met, significant climate provisions have been passed in the bipartisan Infrastructure Investment and Jobs Act (IIJA). As of this writing, it is mobilizing members in a final push to pressure the Senate to pass a more ambitious climate program as part of the Build Back Better Act (also known as the budget reconciliation bill). Internally, they are undergoing both planned and unanticipated restructuring. They are engaging in a year-long process of “frontloading” to determine their strategy in 2022 and beyond, as well as addressing internal critiques and growing pains raised by members over the past year.

By developing our own theory of change for Sunrise and assessing it against the available literature, we conclude that much of Sunrise’s approach has been grounded in evidence. It has a broadly systematic structure and strategy, has attracted much media attention and public support, pushed key Democrats to endorse a Green New Deal, and worked with progressive representatives to prioritize climate policy in the key spending bills of 2021. We assess the assumptions underpinning our theory of change in detail in section 5.

Climate has been a top priority for Democrats in 2021, and we attribute much of that to Sunrise’s work mobilizing the public and pressuring politicians in 2020. Our cost-effectiveness analysis (CEA) shows that Sunrise’s work until now has likely been extremely cost-effective, contributing to a ton of CO2 removed for each $0.22 spent.
However, we have concerns about Sunrise’s need for additional funding and its lack of clear strategy beyond 2021. Sunrise’s budget grew explosively from just $50,000 in 2017 to $15 million in 2020 and 2021. This kind of rapid growth can strain any organization, and it appears that Sunrise is no different, as 2021 was a year of internal friction in the Movement. Also aside from some advocacy work on climate legislation this fall, we did not see Sunrise engaging in the kinds of mass organizing and mobilizing activities that we anticipated from them. Further, we have yet to see Sunrise’s strategy going forward, so it is unclear how Sunrise plans to adapt, grow, and absorb additional funding in the future.

In sum, Sunrise has helped propel climate to the forefront of American politics, but its future is unclear. Based on Sunrise’s prior record of success and our model of cost-effectiveness, we are optimistic that they have the potential to drive political changes that lead to more ambitious US federal legislation on climate. However, we are concerned by their rapid growth, internal discord, and lack of clear strategy for the future. While we are hopeful that Sunrise will address these challenges through its current strategy discussion and move forward stronger, we will not know the outcome of this process until at least Q1 of 2022. Because we are unsure of the Sunrise Movement’s future plans, we have decided not to recommend the Sunrise Movement Education Fund as a top charity for the 2021 Giving Season. When we can better assess its recent impact and its future strategy, we look forward to reviewing the Sunrise Movement Education Fund again.

Overview

The Sunrise Movement is a US youth-led climate activism group that seeks to mobilize popular support and political will for more aggressive climate change policy under the framework of the Green New Deal – a broad term referring to a number of US policy proposals that foreground the synergies between advancing racial & economic justice and decarbonizing the economy.

The Sunrise Movement seeks to accomplish these aims by:

a. Pressuring politicians and candidates for elected office to commit to support Green New Deal legislation and to refuse donations from fossil-fuel-linked interests,

b. Mobilizing public awareness through protests and movement-building, and
c. Issuing endorsements and supporting candidates for office who share the movement’s vision through financial support, get-out-the-vote efforts, and canvassing.

To date, the Sunrise Movement has played a role in pushing action on climate change to a more prominent position on the Democratic Party’s policy agenda and has provided support to numerous candidates aligned with its pro-climate agenda.

1 The Sunrise Movement is an organization with charitable activities funded by its 501c3 Sunrise Movement Education Fund, as well as affiliated 501(c)(4) and PAC organizations. The Sunrise Movement’s website describes activities of all the affiliated organizations. In this document we describe the activities of the movement as a whole. However, as IDinsight is a non-partisan 501(c)(3) organization, Giving Green does not analyse or recommend political activities. Our description of the Sunrise Movement does not imply an endorsement of the political activities of the Sunrise Movement that are funded by their 501(c)(4) or PAC entities.
Giving Green’s research
Giving Green researched available material from the Sunrise Movement and spoke to members of their data team, fundraising team, local hub leadership, and former volunteers in major hubs about the organization. In addition, we reviewed a wide array of articles in current news sources about the movement, and consulted independent experts in climate policy, climate philanthropy, and social movements. We constructed a theory of change describing our understanding of how Sunrise seeks to impact climate change policy in the United States. We then assessed measurable activities as well as the academic literature related to each component of Sunrise’s theory of change, including rigorous research on climate policy and social movements. This helped us better understand whether the movement’s approach is evidence-based. Finally, we created a cost-effectiveness model based on Sunrise’s historical activities and accomplishments, to arrive at an estimate that Sunrise’s activities removed a ton of CO2 for every $0.22 spent.

Our research on Sunrise and decision on whether to recommend them as a top charity is centered on the work of its 501(c)3 branch, the Sunrise Movement Education Fund. In this deep dive, however, we do describe activities of all parts of the Sunrise Movement as we find they are closely interconnected.

Sunrise Movement in the Political Context of 21st Century US Climate Policy

Cap-and-trade
In 2009-2010, a number of climate groups succeeded in bringing legislation before the US Congress to pass nationwide cap-and-trade legislation, known as Waxman-Markey. Despite Democrats holding the presidency and both houses of Congress, which was viewed as highly favorable for climate legislation, it failed to pass the Senate. Democrats held 58-59 seats over the period, and some analysts suggested that it may have struggled to even reach 51 votes.

Some commentators pointed to the highly technocratic and insider-led nature of the policy effort, which was not met by effective grassroots mobilization efforts and coalition-building to generate public support, especially on the left (Skocpol, 2013). Indeed, in the lead-up to the 2010 cap-and-trade failure, the majority of funding for climate-related activity went to “insider” methods like lobbying, rather than public mobilization and efforts to shape public opinion (Nisbet, 2018).

In this context, Sunrise can be seen as a response to and part of a shift in priorities in the US climate ecosystem towards activist and public-opinion-focused interventions.
Transitioning from the Trump administration to the Biden administration

Sunrise launched in earnest during the Trump administration (2017 to 2021). President Donald Trump rolled back major climate policies and withdrew the US from the 2015 Paris Agreement on climate change mitigation. Backlash against these actions led to the formation of numerous climate activist groups, which were part of a larger movement of American resistance against the Trump administration (e.g. Women’s March, March for Science). While Trump was in office, climate groups largely focused on ensuring that climate change remained a political priority by mobilizing the public and campaigning for climate-forward candidates.

Climate activism groups changed their focus after the 2020 election, in which President Joe Biden was elected to the White House and Democrats gained narrow control of both houses of Congress. With a Democratic trifecta, it became presumably possible for Democrats to pass climate change legislation by voting along party lines. Climate activists shifted their strategy towards determining how to win and implement policy over the long term. Crucially, Senators Joe Manchin and Kyrsten Sinema are moderate Democrats who have acted as swing votes in the Senate. Because Democrats only have very narrow control of the Senate, Democrats will need to win both senators’ votes to pass legislation. However, both senators have advocated against large sums of spending on climate policies. Senator Manchin, for example, has pushed back against the inclusion of the Clean Electricity Performance Program in the 2021 budget reconciliation bill (i.e. the Build Back Better Act). We discuss this further in section 5.

The window of opportunity for Democrats to pass climate legislation may be relatively narrow because (1) the incumbent President’s party tends to lose seats during midterm elections and (2) a Democrat trifecta has only occurred about once a decade for the past 40 years. It is therefore possible that 2021 is the likeliest year to pass progressive climate policies for a decade or more.

The Green New Deal

While now most associated with Sunrise, the idea of a “Green New Deal” (GND)—climate legislation involving historic levels of government spending similar to that of the original New Deal passed during the Great Depression—dates back to as early as 2007. In its current iteration, the Green New Deal refers first to a nonbinding resolution introduced into Congress in both 2019 and 2021, sponsored by Representative Alexandria Ocasio-Cortez and Senator Ed Markey. Both are allies of Sunrise; Ocasio-Cortez, Sunrise, and Justice Dems worked on the proposal for a Green New Deal committee that both led to the eventual resolution and Sunrise’s launch into the media spotlight.

A number of independent organizations conduct campaigns around a “Green New Deal” of some kind. (For instance, the Green Party, which has no affiliation with Sunrise, maintains a GND as part of its platform.) A common misconception is that the GND is a bill or a specific policy proposal with a calculable price tag, which it is not. Instead, the GND is an organizing framework for many proposals to make large federal
investments in climate that also seek to rectify racial and economic injustice. For instance, the GND for Public Schools is a bill introduced in 2021 that proposes federal funding for green retrofits of public schools, increased staffing, and educational resources, with a focus on addressing educational disparities.

---

Sunrise Movement’s Organization

History of Sunrise

Sunrise began in 2013 as a small group of college students frustrated by the lack of serious climate policy change in the US and dedicated to creating a new climate activism movement. Over the period 2013 to 2017, the group created its core messaging and strategy under the name US Climate Plan. The group’s leaders participated in Momentum, a social movement incubator established in 2014 that trains incipient movement leaders in community organizing, drawing upon academic literature on the subject and case studies from participants’ own experience. By 2017, the group incorporated as a 501(c)(4) to engage in political activity and as a 501(c)(3) organization (known as the “Sunrise Movement Education Fund”) to support youth skill trainings, strikes, and creative projects. The group also added a political action committee (PAC) which operates during election seasons.

The group has forged links with many other prominent progressive and environmental groups, including the Sierra Club, which provided office space for Sunrise’s leaders. Sunrise is aligned with Justice Democrats, a progressive political organization that seeks to support campaigns by progressive primary challengers in Democratic primaries. Sunrise issues endorsements of candidates aligned with their values and environmental policy goals through the national 501(c)(4) branch of the organization.

Organizational structure

Sunrise is organized around a national leadership team and a series of over 400 local teams called “hubs,” which are not formally incorporated as 501(c)(3) or (c)(4) organizations. The national organization (through its different entities) provides financial support to local hub groups. The national leadership team coordinates the organization’s activities at a high level and sets the agenda and tone of the organization nation-wide, in addition to coordinating political engagement and endorsing candidates for national-level political races. Local hub groups mirror the national group and act in coordination with it, but additionally focus on more local-level concerns. Hubs can, for example, endorse individual candidates running for local office independent of input from the national movement. Hubs can also organize protests and other forms of mobilization around locally relevant issues. Hub leadership sometimes live together in dedicated apartments that host Sunrise Movement events and activities.

Overall, hubs are characterized by a high degree of independence, and they often operate with significant autonomy from the national group. Through our interviews with current and former affiliates of Sunrise, we
concluded that there is a high degree of variability between hubs in their practices and approach. The majority of Sunrise consists of volunteers, and hub leadership teams may include a mixture of paid staff and volunteers.

Decision making within hubs takes place through a mixture of consensus-based and committee-based decision making depending on the context, with large variation depending on the hub. Large hubs may contain a series of committees that oversee key operations of the movement over a defined geographic area as well as smaller project teams that work on defined activities and goals of the local movement.

**Strategy & “frontloading”**

In 2021, Sunrise reached the end of its initial strategy, which centered around building power up to the 2020 election. Momentum, the theory of organizing under which Sunrise founders trained, relies on a process called “frontloading” to maintain unity in the decentralized structure described above. Frontloading involves a dedicated strategy team building the “DNA” of the organization—strategy, culture, messaging, etc—upon which local hubs can base their own strategies. In their own words: “Sunrise has outgrown its original structures/practices for decision-making, and transparent communication norms that were designed for a much smaller movement. Other critical things like how to build multiracial, cross-class hubs or building leadership at scale were too basic or missing completely.”

As of this writing in November 2021, Sunrise is in the middle of their frontloading process. The team leading frontloading is made up of hub and staff leaders that are majority working class and majority people of color. The process includes crowdsourcing learnings and solutions from the movement; writing content and getting input from members, leaders, partners, staff, and the public; establishing Sunrise’s DNA; sharing the DNA Ratification Process; and conducting mass training.

Sunrise is currently in its content testing phase, which involves getting feedback from members on its DNA (e.g., whether they would join this movement, whether the updates would address challenges they’ve seen and experienced).

**Budget & funding needs**

Sunrise’s budget has dramatically increased over the last five years. In 2017, both the 501(c)3 and 501(c)4 entities operated on a $50,000 budget, growing quickly to $850,000 in 2018. This budget then grew to $2.5 million in 2019, and finally to $14.7 million in 2020. This budget growth stabilized somewhat in 2021, with Sunrise reporting an estimated budget of $15 million. If we can assume that Sunrise allocated its 2021 budget similarly to its 2020 budget, this means that the Sunrise Movement Education Fund (its 501c3) operated with a budget of $8.5 million in 2021.

This kind of rapid growth can put strain on any organization, and we suspect that Sunrise is no different. As detailed in other sections, Sunrise has experienced growing pains this last year, with growth in size creating
internal divisions and disconnects between its local hubs and its national leadership and BIPOC members raising issues of tokenization and under-compensation. We suspect that Sunrise’s rapid growth contributed to these challenges. Additionally, aside from some advocacy related to climate legislation and a few smaller-scale demonstrations this year, we have not seen the kind of mass organization and mobilization around climate issues that we would have expected from the movement.

It is also unclear how Sunrise plans to adapt and grow in the future. We anticipate that Sunrise will produce and release a forward-looking plan as part of its current frontloading exercise, but at the time of this analysis and writing, we have yet to see their plans for growth. Therefore, we are unable to assess whether it has room for additional funding in 2022.

Sunrise Movement’s Theory of Change

Rather than presenting the theory of change as articulated by Sunrise itself, this theory of change represents Giving Green’s own assessment of how Sunrise works and seeks to work in practice, based on our own assessment of materials produced by and about Sunrise.

The Theory of Change is organized into five distinct stages, each of which corresponds either to inputs, actions, or outputs. We follow the broad formula of inputs + actions = outputs, which expresses the overall structure of the theory of change. The three final stages of the five are all outputs, which occur one after another according to the arrows depicted in Figure 1.

Figure 1 below presents the full theory of change of Sunrise constructed by Giving Green’s research team. We first explain key elements of the theory of change, and then explore the assumptions necessary for them to hold and explain whether or not we think these assumptions hold.

Sunrise Movement’s tactics

To push for stronger climate policy in the US, Sunrise uses a variety of tactics to pressure candidates and elected officials to adopt stronger climate policies, mobilize public awareness and support for stronger climate policy, and support candidates for office that share Sunrise’s priorities. Below, we provide details on some of the specific activities that comprise the core of Sunrise’s work and operations:

1. Bird-dogging and “polarization”
   Sunrise seeks to change the political environment in which climate policy is enacted through directly applying pressure on individual politicians and candidates for elected office to adopt climate plans that are more ambitious than the status quo and aligned with the Green New Deal.
The best-known tactic employed by the movement is “bird-dogging," or putting politicians on the spot in public settings to make commitments to climate policy. Sunrise Movement activists, for example, confronted Democratic presidential nominees in 2020 during campaign events and publicly asked politicians to endorse policies and make commitments on the spot. Sunrise activists publicly asked politicians to state their position on the Green New Deal and to sign a statement saying they will not accept campaign donations from corporations or individual donors linked to the fossil-fuel industry. Each instance of “bird-dogging” is well-documented by other activists using video recorders and phones. In each case, an emotionally charged testimony is followed by a demand, forcing the candidate to respond.

These tactics fall into the broad category of “polarization” tactics championed by Momentum, the organization in which Sunrise’s leadership incubated the organization before launching it at full scale. These tactics are meant to make action and commitment by politicians and other powerful figures unavoidable by forcing them to take clear stands in front of the public, who provide implicit accountability. The success of the tactic relies on the widely publicized nature of these interactions, which are packaged to generate social media buzz that often spills over into conventional media as well.

For example, Sunrise activists’ highly publicized interaction with California Senator Dianne Feinstein in 2019 was viewed 10.6 million times on Twitter and shared nearly 24,000 times, and this content was eventually covered by major US and International news outlets, including The New York Times, Washington Post, CBS, The Atlantic, The New Yorker, and The Guardian, among others. The incident prompted an almost
immediate press release on the interaction by Senator Feinstein’s office. As the coverage in The Atlantic article above demonstrates, the framing of interactions can be significantly manipulated in subsequent media coverage, both to the advantage or disadvantage of the movement.

2. Political endorsement and engagement
Sunrise endorses candidates at the national level (through the Sunrise Movement 501(c)(4) as well as its Political Action Committee) and through local hub organizations (which cannot pass funds on to political candidates). At both the national and the local levels, Sunrise Movement members volunteer with and support the political campaigns of endorsed candidates. In 2020, Sunrise claims to have contacted 6.5 million voters.

3. Protest and public action
In addition to interventions targeting individual politicians, Sunrise also organizes and takes part in broader protest actions that may involve a large number of participants, often ending in arrests. Overall, these events are often less well-publicized than smaller, targeted events such as Sunrise’s occupying Nancy Pelosi’s office. In many cases, these protests involve occupying public spaces and are often organized around targeted demands. For example, Sunrise Movement protesters occupied the front steps of the Democratic National Headquarters in Washington, DC for a number of days to demand (unsuccessfully) that the DNC schedule a climate-focused debate; held multi-day youth marches to support a jobs program for climate resiliency; and went on hunger strike outside the White House to pressure Biden to use his leverage to pass climate legislation. In all cases, participants capture events through photo and video that is disseminated by Sunrise-linked accounts on social media.

4. Coalition building
Sunrise actively seeks to form partnerships with other civil society organizations as well as with allied politicians. The most public examples of this include Sunrise’s close alliance with NY Congresswoman Alexandria Ocasio-Cortez and Vermont Senator and repeat presidential candidate Bernie Sanders. In addition to high-profile political allies, Sunrise has formed coalitions with a number of other national and local politicians and political candidates (who are often endorsed by the movement), progressive organizations such as Justice Democrats and New Consensus, and aligned climate activist and advocacy organizations such as the Sierra Club and 350.org.

Sunrise has also collaborated with numerous organizations, including Evergreen Action, the Green New Deal Network, and the US Climate Action Network. They collaborated with Evergreen Action on developing the No Climate, No Deal tracker, which identified elected officials who were unwilling to vote in favor of the bipartisan Infrastructure Investment and Jobs Act unless it included climate investments. Sunrise is part of the Green New Deal Network’s Coordinating Team, which sets GNDN’s policy agenda.
5. Participation in policy decision-making processes
In addition to the methods listed above, Sunrise’s leadership increasingly plays a role in formal decision-making bodies. The most prominent example of this is the participation of Varshini Prakash, Sunrise’s executive Director, in president-elect Joe Biden’s climate policy advisory board.

Sunrise Movement’s desired outcomes

1. Election of political allies
The Sunrise Movement’s political action organization branch (its 501c4) directs volunteer time and effort to political campaigns of endorsed candidates, who have pledged support to the Green New Deal, in primary and general races.

During the 2020 Democratic primaries, Sunrise made a total of 17 pre-primary endorsements for national-level contests, 8 of which are candidates affiliated with the progressive group Justice Democrats. Of these 17 endorsements (13 House, 3 senate, and 1 president), a total of 8 have been elected (47%). Of 1.5 million calls made as part of Jamaal Bowman’s successful campaign for New York’s 16th congressional district, during which he upset a long-standing incumbent, 57% were made by Sunrise Movement activists.

During the 2020 general election, Sunrise made a total of 19 endorsements. Of these, 10 won their elections. Only three successful candidates were involved in elections that might be considered “close” by a wide definition (received < 55% of vote share).

None of the Senate Democratic primary challengers (non-incumbents) endorsed by Sunrise were elected, and their endorsement for President, Bernie Sanders, also did not lead to his winning the Democratic primary.

While the 501(c)(4) national-level organization issues a limited number of endorsements, local hub chapters can also issue endorsements for local-level politicians. At the moment, no comprehensive data on outcomes in primary elections for local-level endorsements has been made available to Giving Green.

Beyond endorsements and providing get-out-the-vote and canvassing services on behalf of endorsed candidates, Sunrise also makes political donations through its 501(c)(4) entity. In addition, Sunrise contributes to general campaigns in swing states to support Democratic candidates in close elections, even if these candidates are not themselves among Sunrise’s endorsements.

2. Commitments by politicians and candidates
Sunrise strongly targeted 2020 Democratic Presidential Primary candidates. Of the seven candidates who received one or more pledged delegates at the Democratic Party Convention, only two did not verbally endorse the Green New Deal: Mike Bloomberg and Tulsi Gabbard (who verbally supported the Green New Deal early on but later changed her position). Importantly, verbal support of the Green New Deal is not support for a specific policy, but for the guiding principle of aggressive government action on climate, and
serves as a symbolic demand that can be leveraged to later win policy concessions. Data for Progress, a polling and political analysis organization that supports progressive political candidates and causes, analyzed the extent to which Democratic presidential candidates’ platforms conform to the Green New Deal, finding a significant amount of overlap overall.

Importantly, while President-elect, Joe Biden committed to support some form of the Green New Deal, and included Sunrise Movement leader and founder Varshini Prakash on his advisory body for determining his campaign’s climate policy positions, after she was nominated to join the body by Bernie Sanders.

Overall, Democratic policy positions on the environment have shifted to become more expansive than ever before. This likely reflects shifting public opinion on the issue (in which Sunrise has participated but which predates the movement’s activities) as well as the effort of Sunrise, in concert with other groups, to pressure politicians to commit to Green New Deal-type legislation. While public opinion has been steadily shifting, climate was explicitly not on Democrats’ agenda as late as 2018, before Sunrise’s first major attention-grabbing action later that year.

We do not have detailed data on the full number of politicians (besides those endorsed by Sunrise) who have endorsed Green New Deal-type legislation or otherwise shown signs of being influenced by Sunrise. We note, however, that shifts in the positions of high-profile politicians such as presidential candidates likely reflect (albeit imperfectly) shifts in the party as a whole. For this reason, the support for Green New Deal legislation among candidates in the 2020 Democratic Primaries is likely a meaningful proxy for an overall shift in the party towards the Green New Deal paradigm for climate change legislation.

3. Legislation and legislative activity
An early goal of Sunrise was to institute a Congressional House Committee on the Green New Deal to achieve consensus in the Democratic House majority on a Green New Deal-type legislation. Overall, this goal was only partially met, when House Democrats created a committee on climate change that did not have the power to issue subpoenas or draft legislation.

The Green New Deal was introduced as a Congressional resolution in February 2019 to the US House of Representatives by Representative Alexandria Ocasio-Cortez of New York’s 14th Congressional District and to the US Senate by Senator Ed Markey of Massachusetts. The resolution stalled in the Senate, where the Republican Senate majority voted it down while Democrats voted “present.” It was introduced again in 2021 and has not received a vote.

In 2021, Sunrise’s legislative campaigning has focused on the THRIVE Act, the Civilian Climate Corps, and more generally the climate provisions of the Build Back Better Act. For instance, they advocated for a larger Civilian Climate Corps introduced by Rep. Ocasio-Cortez (D-NY) and Sen. Markey (D-MA) over the one proposed by Biden, protested Biden negotiating the Infrastructure Investment and Jobs Act downwards to meet Republican demands, wrote a letter with several progressive Democrats urging House leadership to
support a progressive climate agenda, campaigned to exclude gas from the clean electricity payment program proposed in the Build Back Better Act.

4. Public attention and media coverage
Sunrise has consistently attempted to attract media coverage in order to shift public opinion and build support and awareness for stronger climate policy under the framework of the Green New Deal. Two of the most notable public attention and media coverage wins of Sunrise to date include occupying Nancy Pelosi’s office and confronting Diane Feinstein.

In 2020, Sunrise Movement activists occupied the steps of the Democratic National Committee to ask for a climate-centered official presidential primary debate. While that idea was not accepted, a majority of candidates accepted the idea of participating in a climate town hall in 2019 in which candidates answered questions and detailed their climate plans. The Town Hall and other similar events highlight an overall increase in attention paid to climate change during debates in 2019 vs debates in earlier election cycles. Sunrise has likely played a key role in the push for climate issues to have greater prominence in Democratic politics at present, though the precise contribution of Sunrise over and above other factors, such as shifting public attention to climate change and thus shifting voter demographics on the whole, cannot be definitively established.

Examining the Assumptions behind Sunrise’s Theory of Change

Below, we discuss and evaluate each of the assumptions linking the five stages of the theory of change together from initial inputs to the final outcome of reduced atmospheric greenhouse gas concentrations. For each of the assumptions identified, we rank whether the assumption most likely holds, may hold, or is unlikely to hold. Importantly, a number of the stages of Sunrise’s theory of change are not amenable to easy measurement or quantification or are expected to occur in the future but have not occurred as of yet. For each assumption, we assess whether the best available evidence, primary or secondary, suggests whether the assumption will plausibly hold or not.

Assumptions linking campaign building to directed action

1. The organizational structure of Sunrise functions well and generates commitment, internal alignment, feedback and learning, and movement growth and continued mobilization. may hold

Any organization is only as effective as its internal structure and function. In this section, we discuss the extent to which Sunrise displays an active attention to identifying, adopting, and scaling appropriate organizational best practices in its operations.
In our activism sector overview document, we conclude that a high level of internal organization is, all else equal, more likely to lead to impact than diffuse, disorganized organizational structures.

Sunrise appears to have considered these critiques in structuring its operations, which make use of the practice of “frontloading” structures, framing devices, methods, and values before beginning actions. Importantly, Sunrise underwent a years-long process of design and planning during incubation with Momentum, suggesting that the organization’s design is intentional rather than highly spontaneous. Based on its success from 2017 to 2020, we believe it had a well-functioning model for an organization of its size. However, we have some concerns about its organization and potential for effectiveness going forward.

Sunrise is currently undergoing another “frontloading” exercise in 2021 to revamp the story, strategy, structure and culture that guide the movement. This “frontloading” may address some of the concerns outlined below.

- **DEI growing pains**: As Sunrise has grown, it has struggled with complaints about failing to live up to its promise of being a multiracial climate movement. Over the last two years, a number of memos and collective action from BIPOC at Sunrise sparked internal discussions about Sunrise’s track record on diversity, equity, and inclusion. Sunrise is still a predominantly white organization, and many people of color have spoken up about feeling tokenized. Others have raised complaints about being overworked and underpaid. Sunrise appears to be in the process of addressing these critiques from its members. In response to demands from its BIPOC Caucus in 2019, Sunrise leadership created a team called the Justice Equity and Anti-Oppression Change Team and committed to adding anti-oppression training for staff and incoming members. In late 2020, another internal group, the Black Sunrise Caucus, delivered a scathing letter demanding for better support for Black staffers and volunteers, and in spring 2021, another small group of Sunrisers published the “Do What Must Be Done” manifesto on Sunrise’s main Slack channel to bring DEI demands to the whole organization, rather than merely in conversations with leadership. Following the manifesto’s publication, two women of color were elected to lead Sunrise’s organizing team and yet another team was created to respond to the Black Caucus demands. Sunrise is in the midst of addressing concerns raised by BIPOC members, so it may be too early to assess how effective their reconciliation efforts are. However, feedback and learning are part of developing effective organizational structures; addressing these concerns is critical for Sunrise to realize its goal of being an inclusive, representative movement for climate justice and to continue to attract and retain the diverse membership it needs to carry out its work.

- **Member transience**: Another critique of Sunrise points out potential weak points in Sunrise’s model of recruitment. Sunrise tends to recruit college-bound high school students, college students, and recent college grads in metro areas. These people tend to be affluent, highly educated, and more transient: “Rather than putting down roots in the given community, they will move to a different part of the country within the next few years.” This may inhibit the effectiveness of Sunrise’s local organizing. Transience can also diminish an organization’s strength because it leads to people with
institutional knowledge leaving. Recruitment and member retention may be covered in Sunrise’s current “frontloading” efforts.

- **Broad agenda without clear priorities:** Another critique of Sunrise’s organizational structure is that Sunrise’s broad agenda but lack of well-defined ideology makes it difficult for local hubs to prioritize between different available actions. This often leaves hubs to split organizing efforts between multiple (potentially incompatible) goals, diluting the effectiveness of any actions taken by members. This lack of ideology or guidance on prioritization may too be addressed by the current “frontloading” efforts.

- **“Hub” model under fire:** Sunrise remains highly decentralized, as individual hubs often have significant ability to determine their own activities outside of the central leadership body (Interview 1). There is little consistency between hubs in the kinds of leadership approaches adopted, and at times there may be a significant lack of consensus and direction in the operations of individual hubs (Interview 1). One critique of the hub model calls it a “self-defeating mix of centralization and decentralization,” as hubs have no say in the creation of the direction of strategy (which is formulated by the national team) but also are not actually required to follow or implement any of the directives from the national team. A related critique is that the national team is also almost solely focused on federal politics, and is unable to “meaningfully assist with local base-building.” This critique, too, may be addressed by Sunrise’s frontloading efforts, and the movement is offering “input sessions” for hub members to discuss a draft of Sunrise’s new “movement DNA.”

Overall, the evidence on what constitutes best-practices for aspiring social movements and activist organizations is not entirely clear and is also likely to constantly shift as political and media realities change. Since Sunrise has adopted a systematic approach to its organization and is actively addressing critiques raised, we conclude that this assumption may hold.

2. The framing and framing devices adopted by Sunrise are appropriate to shift public opinion as electorally relevant. The demands adopted by Sunrise (especially the Green New Deal) are resonant with the public and provide benefits for internal alignment and organization. most likely holds

In our activism sector overview document, we conclude based on existing evidence that emotive, personal frames emphasizing job creation, immediate and salient damages, and (though evidence is thinner in this case) extreme weather events likely make up best practices for framing climate change concerns to the public.

In broad alignment with the literature we overviewed, Sunrise has consistently adopted a framing strategy that emphasizes immediate climate damages and extreme weather events and the job-creation potential of Green New Deal legislation. Sunrise Movement members repeatedly center close-to-home stories, including highly emotive descriptions of potentially climate-linked weather events that affected them or their families personally. In addition, the movement has sought to broaden the scope of its appeal by intentionally centering non-white members. The Green New Deal framework ties together climate action with a host of
other progressive issues. Overall, public support for the policy components of the Green New Deal is high and bipartisan (Gustafson et al., 2018). Large-scale public investment, such as the Green New Deal, is one of the ideas that diverse groups on the left (including politicians, environmental justice organizers, and unions) align on, thanks in part to Sunrise’s early involvement in championing the idea.

Sunrise has adopted an intentional and evidence-based approach to framing climate policy that may avoid some of the pitfalls of relying on scientific jargon and other commonly used past framing devices.

3. Sunrise’s high-profile allies are useful to the organization and do not dictate the trajectory of the movement. may hold

Sunrise is part of a broad coalition of progressive electoral groups, think tanks, and individual politicians who lent early credence to the movement. Because these allies are early supporters, we treat these allies as an input, while further allies are an output of movement activity. These early allies include Alexandria Ocasio-Cortez (who responded strongly to an invitation to participate in the movement’s activities by joining the movement in occupying House Majority Leader Nancy Pelosi’s office in December 2018), Ed Markey, and Bernie Sanders, all of whom were early public supporters of the movement.

In our activism sector overview document, we note that literature on climate change opinion suggests it is highly responsive to cues from political elites, which suggests an important role of politicians in aiding activist groups, a role Sunrise has incorporated into its programming.

Whether or not this assumption holds likely depends on the public perception of the individuals aligned with Sunrise. Alexandria Ocasio-Cortez could be popular with progressives but undermine support from moderates who otherwise support the Green New Deal framework.

Assumptions linking directed action to initial changes

4. Politicians provide ample opportunity for activists to confront them publicly. most likely holds

For bird-dogging and other polarization methods to function, politicians must be adequately accessible and provide ample opportunity to be targeted by such tactics. Sunrise movement activists were successful in confronting most of the candidates in the Democratic presidential primaries as well as a number of high-profile congressional leaders including Nancy Pelosi and Diane Feinstein. Data on the full array of politicians who have been successfully confronted by the movement is not currently available, but these high-profile cases among others suggest that this assumption holds.

5. Media (both social and conventional) covers the events of Sunrise, frames the events in a resonant and positive manner, and disseminates awareness of the events and frames exposure widely. may hold
Media coverage of Sunrise must be widespread enough to reach an electorally relevant population. We analyzed coverage of Sunrise in five major, mainstream US news outlets: the New York Times, the Wall Street Journal, the Washington Post, NPR, and Politico. Politico has published 160 articles covering Sunrise, the most out of the five news outlets we looked at. The New York Times has run a total of 99 articles in its history covering Sunrise, NPR has published 43 articles on Sunrise. The Wall Street Journal and Washington Post have published the least, with 10 and 4 articles, respectively. For all outlets except the Wall Street Journal, news coverage of Sunrise peaked in 2020 and slightly declined in 2021. One commentator notes that “In contrast to the generous and relatively favorable media coverage the group received early on, attention to Sunrise direct actions has waned. Multiday marches through California and the Gulf Coast in May and June, for example, received little to no media coverage.” This is possible, but it is also likely that the Presidential election in 2020 made it a peak year for coverage of activist efforts like that of Sunrise. Overall, these findings suggest that Sunrise has attracted and sustained mainstream media attention. Importantly, we do not observe the reach or type of coverage of each article.

Social media reach of Sunrise is difficult to assess, as followers—the available metric of social media popularity—is an imperfect proxy for reach and engagement. Sunrise has 287k followers on Twitter as of 15 October 2021. Sunrise’s number of Twitter followers has grown over 2021, but its growth rate is less steep than it was a year ago. Last year’s steep growth rate in the fall of 2020 is also potentially explained by the election. This may be an indication that the movement has been moderately successful at attracting social media attention. A recent protest in which activists confronted Manchin driving in his luxury car, while not attracting much traditional media coverage, succeeded in trending “Maserati” #7 on Twitter.

6. The public, particularly the electorally relevant public, allocates attention to Sunrise and public opinion and awareness shifts to be in line with the movement’s aims. This leads to greater mobilization and action around achieving the movement’s aims. may hold

Our review of the literature, primarily from other issue areas, showed that activism can lead to large shifts in public opinion and, further downstream from opinion changes, political behavior, though of course there are many instances in which it fails to do so.

At present, we do not have sufficient data to determine how much public attention and shifts in opinion are attributable to Sunrise itself versus other factors. However, it is likely that Sunrise, in concert with other actors, has contributed to shaping and shifting public opinion on climate change to some extent. In addition, we note that Sunrise has incorporated insight from the available, if limited, literature on the factors driving success in mobilization efforts. This includes Chenoweth & Stephan’s (2011) work on nonviolent movements, which demonstrated that nonviolent movements are more likely to win legitimacy, attract widespread support, and compel loyalty shifts among those in power, compared to armed conflicts. This also includes Tufekci’s (2017) work on how the internet has altered how social movements form, mobilize and persist.
7. **Political endorsements improve the prospects (in both primary and general election settings) of endorsed candidates.** 

Overall, political endorsements are likely most effective in settings such as primary races where voters and politicians share similar ideologies. A [2014 poll](#) found that 60% of Democratic Party voters reported attaching importance to endorsements in determining which candidates to support. A [2011 study](#) found that in primary elections, partisan endorsements significantly affect the candidate’s vote share, even controlling for campaign funds and candidate quality.

It is difficult to tell whether a Sunrise endorsement alone improves candidate electoral changes. The endorsement itself likely only matters if the relevant electorate relies on Sunrise for political insight and leadership. This may be unlikely given Sunrise’s relative newness in terms of election cycles.

Sunrise Movement endorsements, however, are accompanied by significant allocation of volunteer activity towards endorsed candidates. Sunrise-affiliated volunteers, for example, conducted 57% of all phone calls in Jamaal Bowman’s successful primary upset in 2020. Sunrise [claims credit](#) for the unprecedented youth turnout in the 2020 general election for its work in contacting 6.5 million voters via postcards, texts, and calls.

While the evidence on the success of campaign contact and advertising in driving votes is unclear and likely highly context dependent (Kalla & Brookman, 2018), such activities may have a modest effect on certain races.

Sunrise also notes that even when it loses races, there are still wins for the movement, as it grows in “political power and changes the political calculus.” Even when Sunrise’s endorsed candidates lose, the winning candidates are pulled further left on climate and environment. Sunrise claims this occurred in 2018, when it endorsed Abdul-El Sayed for Governor in Michigan and Cynthia Nixon for Governor in New York, and lost both races to Whitmer and to Cuomo, but Whitmer and Cuomo governed more progressively than they would have otherwise.

8. **A lack of fossil-fuel linked funding leads politicians to be freer to take bold action on climate.**

The literature on the role of funding in shaping politician priorities, detailed in our activism sector overview document, is mixed and unclear.

Overall, Sunrise’s emphasis on asking candidates to sign the no-fossil-fuel-money pledge may result in modest policy impact and could potentially very moderately affect candidate’s electability. However, Sunrise or its partner organization Justice Democrats may direct additional money towards candidates and may generate public support through the act of forcing politicians to choose whether to sign the pledge. At the moment, we have no data indicating whether either of these is the case.

Alternatively, the no-fossil-fuel-money pledge may serve more as a symbolic demand and litmus test of whose interests the candidate is likely to represent. Sunrise [describes the pledge](#) as “public
acknowledgment that the climate is in crisis, and that the solutions to climate change do not lie with the fossil fuel corporations.” Signing of the pledge may shift public opinion, both of specific candidates and of fossil fuel companies writ large.

9. Polarization does not have a negative net impact on efforts to reduce greenhouse gas emissions. most likely holds

We must consider if Sunrise’s activism could inadvertently have an net negative undesirable effect on greenhouse gas emissions. In our activism model, we note that this will occur if two conditions are met: (i) bipartisan legislation is impactful for climate change, and (ii) progressive activism decreases the likelihood of bipartisan legislation being passed.

In our model on Sunrise’s impacts, we use the 2021 Infrastructure Investment and Jobs Act as an example of a typical bipartisan climate bill. While this bill has significant climate provisions, its climate impacts are dwarfed by a progressive bill such as the 2021 proposed Build Back Better Act. We find that even if Sunrise were to decrease the chance of a bipartisan bill passing, this effect is dwarfed by positive effects on ambitious progressive-led legislation.

In fact, we find it plausible that progressive activism contributed to increasing the bipartisan bill’s commitment to climate. The Sunrise Movement and Evergreen Action collaborated to push progressive Dems like Senators Ron Wyden, Ed Markey, Tina Smith, and Chris Van Hollen to commit to “No Climate, No Deal,” a promise to withhold support for the Infrastructure Act without a concurrent vote on the more climate-forward Build Back Better Act. Political analysts note that, even as the amount of funding allocated by the Build Back Better Act has been cut down, the climate provisions in the Build Back Better Act have not taken the same “haircut” as other provisions, indicating the progressive Dems influence over the policy agenda. The bipartisan Infrastructure Investment and Jobs Act as passed on November 5, 2021, is already the United States’ largest climate investment. Progressive Democrats compromised by accepting a written commitment from moderates to support the Build Back Better Act, pending a budget analysis. The few progressives who voted against the Infrastructure Investment and Jobs Act only did so because they knew it had enough Republican votes to pass.

Further, we note that case studies highlighted in This Is An Uprising (Engler and Engler, 2016), a book on “momentum-based organizing” models like Sunrise’s, point to polarization, when executed well, as a tool to shift wider public opinion as discussed in previous steps of the theory of change. The civil rights movement of the 1960s, activism against the AIDS pandemic led by ACT UP in the 1980s, and activism of undocumented immigrants in the 2000s all generated significant short-term backlash from opponents, but each movement successfully garnered public sympathy for its cause and reframed their opposition as out-of-touch extremists. Chenoweth, as cited in Engler and Engler 2016, makes the empirical observation that nearly every nonviolent social movement to overthrow a dictatorship required the active participation of only 3.5 percent of the population to succeed. While we recognize that passing legislation and
overthrowing dictators are not the same, we note that the core principle - a small minority of the population can bring about massive shifts in public opinion and policy change - has held true for past social movements in the United States context. Thus, Sunrise’s aim need not be to mobilize all sides, but to mobilize a small and dedicated group on the electoral left.

The authors acknowledge the possibility of polarization as a net negative, drawing on two analyses. Sociologist Kurt Schock distinguishes between “positive radical flanks,” which make moderates appear more reasonable and thus more likely to win, and “negative radical flanks,” which discredit the movement and make moderates less likely to win. And, as discussed in step 7, political scientist Erica Chenoweth finds that violent radical flanks are less likely to succeed. (We note that these analyses too are based on movements in non-democratic regimes, and their applicability to a democratic system may be limited.)

Engler and Engler name the share of supporters vs. detractors of a movement as one indicator of polarization’s success or failure. Based on recent polling from the Yale Program on Climate Change Communication, the share of Americans of all parties who believe government action on climate is a high priority has been steadily growing for about a decade, including a sharp increase in 2021. Notably, they find a 21 percentage point increase in liberal/moderate Republicans who say the Republican party should do more to address global warming. We do not believe that Sunrise alone is responsible for this shift, but we find it unlikely that Sunrise’s nonviolent demonstrations as a “radical flank” are discrediting the climate movement. It is possible, though we are not certain, that Sunrise helped to shift the Overton window such that moderate climate provisions were introduced and passed in the Infrastructure Investment and Jobs Act. Because of the passage of the significant climate provisions in the bipartisan Infrastructure Investment and Jobs Act, as well as a steady bipartisan trend towards support of climate action, we find that this assumption most likely holds.

Assumptions linking initial changes to legislative changes

10. Politicians follow through on their commitments. most likely holds

Based on our review of literature on politicians’ follow-through on commitments detailed in our activism sector overview document, we conclude that it is likely politicians follow through on their commitments, though notably a 67-73% follow-through implies a 27-33% non-follow-through rate. Nonetheless, the evidence suggests that on average politicians are more likely to follow through on their promises than not.

11. Pro-climate politicians gain significantly more political control. most likely holds

In the 2020 general elections, Democrats won a Trifecta: the Presidency, a House majority, and a Senate majority. This is a rare window of increased political control for pro-climate policymakers.
12. **Sunrise is able to influence an amenable government in power even after a general election** may hold

We may look to the past year, from the 2020 general elections to November 2021, for evidence of Sunrise’s effectiveness in a post-election situation in which sympathetic politicians hold considerable political power. Sunrise’s greatest impact in 2021 may have been influencing progressive lawmakers to consider climate a non-negotiable component of the Infrastructure Act and the Build Back Better Act. Sean McElwee, a progressive strategist who runs the polling firm Data For Progress, told **POLITICO** that he credits Sunrise with the continued inclusion of climate in the Build Back Better Act: “If you look at the package, as it has shrunk from 3.5 [trillion dollars] to 1.75, climate has grown in share. It did not take the same haircut that a lot of these other provisions have taken. And I think that’s in large part because Sunrise has made it pretty painful for the Biden administration and for Democrats to oppose climate.”

Sunrise exercised both “outside” and “inside” influence efforts to do so. In the summer of 2021, Sunrise Movement activists protested an early version of the Infrastructure Investment and Jobs Act outside the White House, holding signs that read, “Biden, you coward, fight for us.” Additionally, four Sunrise members went on a two-week-long **hunger strike** in front of the White House in order to pressure Biden to commit to stronger climate action. This tactic has been criticized as ineffective, since targeting Congressional representatives might be a more effective lever for getting legislation passed, but **Biden’s influence was crucial** for pushing Democratic representatives to pass the Infrastructure Investment and Jobs Act in November.

Sunrise also **claims some credit** for the “No Climate, No Deal” rhetoric from progressive House Democrats, which meant that lawmakers would refuse to support the Infrastructure Investment and Jobs Act, unless the more climate-focused Build Back Better Act (i.e. the budget reconciliation bill) was passed alongside it. On November 5, 2021, the House passed the infrastructure bill with bipartisan support. Progressive lawmakers agreed to support the bill in exchange for a procedural vote on the Build Back Better Act that tees it up for a final vote in a few weeks and a written commitment from five centrist lawmakers to support the reconciliation bill in the final vote, pending fiscal review from the Congressional Budget Office. This is a promising development, but ultimately, though, Sunrise’s influence on U.S. climate policy depends on whether the Build Back Better Act becomes law, which has yet to occur. However, even if the bill ultimately fails, if climate spending was larger and/or the bill was more likely to pass than in a world without Sunrise, we can say that Sunrise’s approach is effective. **(Note: This section was last updated on Nov 15, 2021.)**

13. **Sunrise’s public pressure tactics are effective at targeting individual politicians who block a climate agenda.** may hold

Regardless of Sunrise’s influence on the mainstream of the Democratic party, unless a pro-climate majority is elected, it must contend with conservative-leaning or centrist Democrats. In 2021, Democrats (and Independents who caucus with Democrats) hold only 50 seats in the Senate, meaning that any legislation must garner the support of even the most conservative-leaning Democrats, as Republicans show no sign of
breaking with their party in opposition to the budget reconciliation bill. It is possible that Sunrise’s polarization strategy works to shift public opinion, but not when it comes down to a legislative vote. To assess the likelihood of this, we examine Sunrise’s actions targeting the two Senate swing votes on the Build Back Better Act, Joe Manchin (D-WV) and Kyrsten Sinema (D-AZ).

Sunrise has pursued several avenues in the fall of 2021 to pressure Manchin and Sinema to vote for a reconciliation bill with strong climate provisions:

i. **Targeting Manchin and Sinema directly via public protests.** Sunrise has held a series of escalating actions targeting the two senators, including asking Arizona members to call Sinema’s office, sleeping outside of Sinema’s office, and confronting Manchin at a donor event and in a parking garage. It is unclear whether such actions have an effect on the two senators (or are even intended to). In particular, Joe Manchin has strong ties to the fossil fuel industry and represents the nation’s second-biggest coal-producing state. Sunrise’s advocacy director Lauren Maunus told POLITICO that Sunrise was “never naïve [in] thinking that Joe Manchin would support Green New Deal-style climate policy.” Sinema’s priorities are less clear, even to her own party.

ii. **Pressuring Biden, who has indirect influence on Manchin and Sinema.** As covered in step 12 above, Sunrise frequently holds public actions to pressure Biden to prioritize climate in the Build Back Better Act. Biden has a strong interest in passing the bill as his keystone accomplishment in 2021, so without this pressure, it is plausible that he would have supported cuts to climate provisions to speed the bill’s passage. Biden has also been active in negotiations between the left and center wings of his party, including ferrying messages back and forth in the House negotiations over the Infrastructure Investment and Jobs Act. Thus, it is plausible that he has influence over senators’ decisions.

iii. **Pressuring progressive Senators, who can hold out their votes and force Manchin and Sinema to negotiate.** “No climate, no deal” senators who allied with Sunrise threatened to pull their support for the bill should Manchin cut key climate provisions. Because the bill needs all 50 Senators to pass and is a priority for Biden and the Democratic party, this negotiating tactic may have increased or preserved the level of climate spending, compared to what it might have been if centrist senators alone were holdouts.

As of this writing, the negotiations over the Build Back Better Act have yet to reach a conclusion. Regardless, did Sunrise make it more likely for strong climate provisions to pass?

It is impossible to know the true counterfactual of this scenario. Based on the above actions, we believe that (i) targeting Manchin and Sinema directly is very unlikely to change their votes, because Sunrise has little leverage over the two senators. Sunrise seems to acknowledge this as well. We think these actions’ main purpose might be to galvanize public support for (ii) and (iii), as well as to grow Sunrise’s profile for future fights, although we do not have information to determine whether that has been successful. Similarly, (ii) pressuring Biden is moderately unlikely to have an effect on Manchin’s and Sinema’s votes over a counterfactual, because Biden independently has strong incentives to win their votes himself, although it may or may not have helped keep climate provisions in the bill. (iii) Pressuring progressive Senators is
moderately likely to increase the chance of swing votes for climate provisions. As discussed in step 12, Sunrise has made climate a non-negotiable part of the year’s spending bills. Without the progressive bloc’s focus on climate, we find it likely that big climate programs would have been cut sooner due to garner Manchin’s support for the package. Overall, we find this assumption may hold.

Assumptions linking legislative change to reduced greenhouse gas concentrations

14. Proposed policy changes seriously reduce atmospheric greenhouse gas concentrations. most likely holds

Most climate experts agree that the climate measures in the Build Back Better Act would result in substantial reductions in economy-wide GHG emissions. Estimates from specific models vary and depend on which provisions make it into the final bill. The U.S. Energy Policy Simulator estimates that the Infrastructure Innovation and Jobs Act and the Build Back Better Act could cut economy-wide emissions by between 828 and 1090 million metric tonnes of CO2 by 2030.

15. A political regime sympathetic to climate action continues to hold power in the long-term. unlikely to hold

It is difficult to comment on this assumption in the long-term. However, most analysts agree that it is very unlikely that Democrats will maintain a Trifecta after the midterm elections in 2022. Historically, the president’s party has lost seats in all but two midterm elections since WWII. Given Democrats narrow margins in both the House and the Senate, it seems unlikely that they will maintain a majority in both houses in the 2022 midterms.

However, beyond the 2022 midterms, we are unable to comment, and there will likely be other periods in the future where the window for climate action opens.

Sunrise Movement’s cost-effectiveness

Overview

We developed a simple cost-effectiveness analysis that assesses the impact of Sunrise’s work, from their inception to the present, on reducing GHG emissions from the present to 2030. Note that we are unable to extrapolate this to the future due to uncertainty about their strategy, and this CEA should be considered backward-looking.

In this model, we focused on Sunrise’s potential impact on two types of bills: a bipartisan bill and a progressive-influenced bill passed along party lines. After testing various scenarios in our CEA (e.g., Very
Pessimistic to Optimistic), we found that donating to Sunrise could be highly cost-effective in reducing GHGs, which we measured in terms of CO2-equivalent (CO2e). Namely, our Realistic case estimated that Sunrise could remove CO2e at a cost of $0.22 per metric ton. In other words, a dollar spent on Sunrise could remove about 4.6 metric tons of CO2e. In general, the cost per change in metric ton of CO2e ranged from $0.11 to remove a ton of CO2e to actually adding a ton of CO2e for every $1.54 spent on Sunrise. We explore these pathways for negative effects in detail, and conclude that they are highly unlikely. Given the large uncertainty on the different values we used in our analysis, our estimates should be viewed as rough, indicative estimates.

We conducted our CEA by (1) estimating how much CO2e could be averted through bipartisan and progressive climate bills between 2022 and 2030, (2) assuming the change in probability of these climate bills being passed due to Sunrise, (3) calculating an expected value for Sunrise in terms of CO2e averted, and (4) using our estimates and assumptions to calculate cost-effectiveness.

**Methods**

**Overview**

To determine the cost-effectiveness of Sunrise in removing CO2e from the atmosphere, we developed a stylized situation that includes two types of bills: a modest bipartisan bill and an ambitious progressive-led bill. We used the Infrastructure Investment and Jobs Act and the Build Back Better Act as proxies for the bipartisan bill and progressive bill, respectively. The key dynamics from our model comes from the assumption that progressive activism will have a positive impact on the progressive bill passing, but an ambiguous impact on the bipartisan bill passing. We also assume that there are more opportunities for a bipartisan bill to pass than a progressive one. We estimated Sunrise’s cost-effectiveness by taking the steps detailed in Figure 2.

Our approach was near-identical to the approach that we used for calculating the cost-effectiveness of donating to climate change activism (please see our [Activism CEA](#) for more detail). To account for uncertainty in our estimates, we examined a range of probabilities, which we labeled as our Very Pessimistic, Pessimistic, Realistic, and Optimistic scenarios.

The effect of Sunrise on the likelihood of either bill being passed

**Background**

As in our climate change activism CEA, we assumed the following to be true:

- Climate change activism would be progressive.
- Activism would increase the likelihood of a progressive bill being passed because of their similar alignment and because this is the explicit policy goal of many progressive activist organizations.
- Activism could have a positive effect on a bipartisan bill if progressive pressure moves the position of the center or spurs action by the right to stave off more progressive legislation later.
• Activism could have a negative effect if it polarizes climate change as an issue such that it cannot get right-wing support or if it prevents compromise. Additionally, activists may advocate for a more progressive bill in place of the bipartisan bill; this could therefore reduce the bipartisan bill’s likelihood of being passed.

Figure 2: Flow chart describing the process of estimating Sunrise’s cost-effectiveness. Rectangles indicate model inputs while rounded rectangles represent expected values. Parallelograms indicate the final model outputs. Values related to the bipartisan bill are yellow while values related to the progressive bill are blue.

**Progressive bill**
We assumed that Sunrise would increase the likelihood of a progressive bill passing. We assigned probabilities of 0.5%, 0.5%, 5%, and 10% for the Very Pessimistic, Pessimistic, Realistic, and Optimistic cases, respectively. These values were informed by our research and expert interviews. While impossible to know for sure, most insiders have told us that the climate provisions in the Build Back Better Act would not have happened without the rise in activist policy organizations (such as Sunrise) over the last couple of years.
**Bipartisan bill**
For our Realistic and Optimistic scenarios, we assumed that Sunrise would increase the likelihood of a bipartisan bill being passed. For the Very Pessimistic and Pessimistic cases, we assumed that Sunrise would either decrease this same probability or have no effect at all. Ultimately, we estimated probabilities of -5%, 0%, 1%, and 5% for the Very Pessimistic, Pessimistic, Realistic, and Optimistic cases, respectively. We selected these values by first assuming that the Realistic case would increase the probability of the bipartisan bill being passed by a very small percentage. We then used that percentage to anchor our estimates for the remaining cases.

Although we examined a case in which Sunrise would have a negative impact on bipartisan action, we believe that the likelihood of the Very Pessimistic case actually happening is very low. For example, activist pushback against modest climate reforms may be viewed negatively but can in fact have a positive effect on climate. For instance, the activist-led “No Climate, No Deal” campaign in 2021 led to sixteen US Senators refusing to vote on the Infrastructure Investment and Jobs Act unless it included bold climate action. Ultimately, the bill was passed in the Senate with the inclusion of various climate provisions. This kind of brinksmanship likely results in bipartisan bills having stronger climate provisions, but also increases the chance that no bill passes at all. However, we are not aware of any cases where progressive pressure has actually derailed a bipartisan climate bill from passing.

**Cost**
We used Sunrise’s revenue from 2015 to 2021 as a conservative estimate of Sunrise’s cost in influencing the progressive and bipartisan bills; this time period covers Sunrise’s funds from inception to present day. We calculated Sunrise’s total revenue from 2015 to 2019 using publicly available tax returns. We estimated its 2020 and 2021 revenue using its self-reported budget for that year.

**Guesstimate model**
We also tested our CEA using Guesstimate, which allowed us to set the shape of each input’s distribution. Our Guesstimate model used a Monte Carlo simulation with 5,000 samples per metric.

**Results**
The CEA model predicted that under the Realistic case, Sunrise’s cost per change in metric ton of CO2e is about $0.22 per metric ton (about 4.6 metric tons of CO2e per dollar) (Table 1). The Pessimistic and Optimistic cases remove CO2e at a cost of $2.21 and $0.11 per metric ton, respectively (about 0.45 and 9.5 metric tons of CO2e per dollar). Under the Very Pessimistic case, donating to Sunrise adds CO2e back into the atmosphere at a cost of $1.54 per metric ton (0.65 metric tons of CO2e per dollar).
Table 1: Cost-effectiveness of Sunrise using CEA model

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Cost per change in metric ton of CO2e (positive equals decrease in CO2e)</th>
<th>Change in CO2e per dollar (metric ton of CO2e/dollar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Pessimistic</td>
<td>-$1.54</td>
<td>-0.65</td>
</tr>
<tr>
<td>Pessimistic</td>
<td>$2.21</td>
<td>0.45</td>
</tr>
<tr>
<td>Realistic</td>
<td>$0.22</td>
<td>4.64</td>
</tr>
<tr>
<td>Optimistic</td>
<td>$0.11</td>
<td>9.50</td>
</tr>
</tbody>
</table>

Per our Guesstimate model, the distribution for Sunrise’s change in CO2e per dollar is right-skewed (Figure 3). The Realistic scenario’s cost was similar to that of the median of our Guesstimate model, which was $0.31 per metric ton or about 2.8 metric tons of CO2e per dollar. The 5th percentile was a cost of $0.62 to add a metric ton of CO2e back into the atmosphere (0.20 metric tons of CO2e per dollar) while the 95th percentile was $2.16 to remove a metric ton of CO2e (about 13 metric tons of CO2e per dollar). The likelihood of CO2e being added back into the atmosphere occurs at the 6th percentile and below.

Figure 3: Histogram of change in CO2e per dollar. Positive values indicate that CO2 is being removed from the atmosphere while negative values indicate that CO2 is being added back into the atmosphere. The horizontal axis is truncated to the 5th and 95th percentiles.

Discussion of potential negative impacts
Similar to what we found in our climate change activism model, we believe that there is some risk that donating to Sunrise could lead to an increase in CO2e. However, we find this to be unrealistic. Namely, a
negative impact would require (1) bipartisan bills to have a high impact relative to progressive bills and (2) activism to have a negative impact on bipartisan bills being passed. Because both of these requirements seem unlikely to us, the overall likelihood of Sunrise having a negative impact on climate change is probably low.

We admit it is possible that we may be underestimating the long-term effect of bipartisan provisions, given that we may be underestimating the climate impact of R&D, which has been included in recent bipartisan bills. For instance, R&D investment into carbon capture could significantly reduce the technology’s cost over time. However, even if bipartisan bills are more impactful than what we estimated, this is not enough to make the effect of Sunrise negative. For this, we also need to assume that activism decreases the chance of bipartisan bills passing, which we think is unlikely.

Conclusion
According to our CEA model, donating to Sunrise could be highly cost-effective in reducing CO2e emissions. For example, under the Realistic scenario, donating to climate change activism could reduce CO2e emissions at a cost of $0.22 per metric ton, which compares favorably with other cost-effective charities we have analyzed.

Bibliography


Skocpol, T. (2013). Naming the problem: What it will take to counter extremism and engage Americans in the fight against global warming. In Harvard University, the symposium on the politics of America’s fight against global warming.


