History & Hope for Climate Action:
Illuminating the Role of Energy in National Parks

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National parks have a unique opportunity to illuminate American history, connecting stories from the past to challenges of the present and future. The 433 units of the National Park Service (NPS) encompass a wide variety of physical spaces and historical narratives, from vast wilderness to historic homes and memory-laden battlefields. At each site, interpreters work to draw connections between historical events and issues that resonate with visitors today. One of those challenges, for parks and people alike, is climate change.

Every NPS site faces the realities of climate change's impacts and has an enduring responsibility to communicate about climate change with the public. However, some sites struggle with this mandate, as interpreters find it difficult to identify relevant connections between climate change and their park story. Others forego storytelling in favor of a "just the facts" approach, which is often insufficient for expanding visitor perspectives. To help bridge this communication gap, Graves and Villano developed *History & Hope for Climate Action: An Interpretive Toolkit* with support from NPS's Climate Change Response Program and the Cultural Resources Office of Interpretation and Education.

History & Hope was designed to expand NPS's approach to discussing climate change with visitors. Previous climate communication strategies in both conservation and preservation areas focused primarily on scientific and technical data to highlight climate change's threats to park resources. This method often feels overwhelming or abstract to visitors, failing to engage them meaningfully and sometimes contributing to feelings of paralysis or fear. *History & Hope* is based on the principle that human-centered stories can transform national parks and other cherished places into catalysts for climate action, rather than merely victims of climate change.

The history of energy is one of the key narratives NPS sites can illuminate. Many parks hold stories that reveal aspects of energy that often go undiscussed: how it is produced and consumed, how people's relationship with it has transitioned over time, and the profound social impacts those changes created. Talking about energy stories makes visible these invisible forces that shape daily life. Energy is an especially critical topic in the context of climate change today, as the vast majority of energy consumption in the United States still comes from fossil fuels like petroleum and natural gas.[1] Burning fossil fuels is a major driver of climate change, linking our past and current energy choices to the challenge we now face. By exploring this history, parks can provide insight into how these systems evolved and inspire action as they underscore the urgency of transitioning to sustainable energy sources.

This essay will explore three NPS examples that can interpret the unseen threads of energy and connect them to climate change using the *History & Hope* framework. First, we will show how the historic house of a prominent American leader can be used to illustrate the growing separation of energy production and consumption at the turn of the 20th century. This separation has made energy sources largely invisible to most people today. Next, we will examine how energy is intertwined with the way people travel, recreate, and experience parks through the development of "Mission 66" infrastructure in the NPS.

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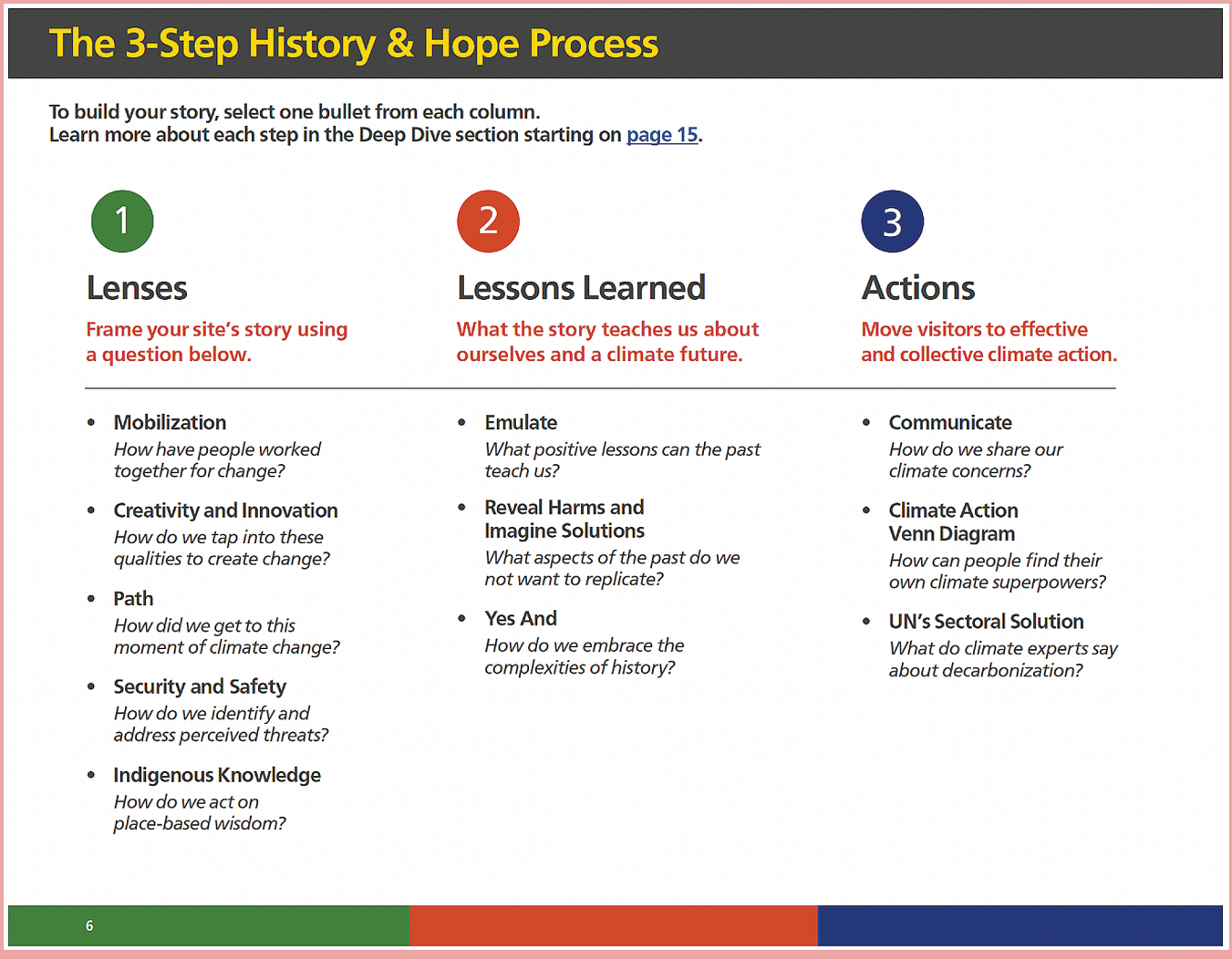
The initiative had long-lasting consequences, embedding fossil fuel-based transit into park visitation to this day. Finally, we'll explore the unintended consequences of World War II (WWII) mobilization, when the need to organize the nation as an "arsenal for democracy" led to increasing use of fossil fuels that persisted and grew throughout the post-war era.

Each of these stories highlights a different aspect of energy history and demonstrates how park stories can help interpreters engage visitors in discussions about climate change and inspire them to take meaningful action. *History & Hope* emphasizes motivating collective and effective action as part of its three-step framework (Figure 1). By presenting real-world examples of action and offering visitors ideas for how they can act themselves, we can counter feelings of despair the climate crisis often creates. Hope—the antidote to despair—is fostered and sustained when we see examples of collective, effective actions that move us toward a more just and sustainable future.

EXAMPLE STORY 1: MAGGIE L. WALKER NATIONAL HISTORIC SITE

Maggie L. Walker's home in Richmond, Virginia, might initially seem an unlikely place to interpret climate change. As a civil rights leader, bank president, newspaper publisher, and head of a fraternal organization in the Jim Crow South, Walker worked tirelessly to enhance the political and economic power of African Americans and women (Figure 2). NPS interprets her significance at the three-story brick home she purchased in 1905, where visitors are primarily prompted to reflect on the past—not the climate challenges of the present and future. However, aspects of her story, when viewed through an energy-focused lens, offer unexpected connections to today's climate crisis and invite consideration of solutions.

FIGURE 1. *History & Hope's* Three-Step Process.



Shortly after purchasing this house, Walker transitioned its power source from gas to electricity and traded in her horse and carriage for an electric automobile. Her home showcased her success and provided inspiration to the many African American women and men who met and worked with her there. The transition toward electrification that Walker made in her home was also happening in households across the country, even as the source of that power—electricity—became invisible to average Americans (Figure 3).

During Walker's childhood and early adulthood, the wood, coal, and gas that heated and illuminated homes were highly visible. Consumers typically had coal delivered to their houses or gathered biofuels, usually wood, to burn themselves. Denser urban neighborhoods often had nearby generation plants that powered household energy while also emitting soot and degrading air quality. As electricity became more widespread, its abstract and invisible nature became an unseen foundation for American life. Electrification networks enabled long-distance power transmission from distant plants, allowing consumers to live without the direct impact of airborne pollution from burning coal or a direct understanding of where their energy was coming from. New urban and regional electrical grids developed at the same time as rising consumerism and cheaper power. This led many Americans to become increasingly unaware of the intensity of their energy usage and its environmental costs. Recent studies reveal that, even today, most Americans remain ignorant of the origins of their electricity and the part that coal continues to play in its generation.[2]

How can climate change interpretation be integrated into the story at Maggie

FIGURE 2. Maggie L. Walker at her home in Richmond, Virginia, n.d. NATIONAL PARK SERVICE

FIGURE 3. Fans were among the first household appliances to use electricity. Maggie Walker's desktop fan could be used to cool residents in warm weather or to dry laundry. MAGGIE L. WALKER NATIONAL HISTORIC SITE/NATIONAL PARK SERVICE

Walker's home? Interpreters could discuss the significant energy shifts reflected in Walker's house and her choice of transportation while drawing connections to the energy transition we are currently undergoing toward renewable power. Telling this story creates an opportunity for interpreters to discuss the invisibility of energy sources and impacts in modern-day life, allowing visitors to reflect on the sources of their everyday energy and make connections to climate change. Walker's lifelong commitment to social justice should be a pillar of this interpretation, inviting visitors to reflect on the importance of ensuring this transition is equitable—so that the future is just as well as sustainable.

By applying the *History & Hope* method, interpreters at Walker's house could utilize the Climate Action Venn Diagram to help visitors identify their own path to climate action. Created by marine biologist and climate activist Dr. Ayana Elizabeth Johnson, the diagram poses three questions: "What brings you joy?" "What are you good at?" and "What work needs doing?" The inclusion of joy in this framework might surprise visitors, as it is not typically associated with discussions about the climate crisis. However, just as Walker's fight for justice was a long and ongoing battle, the fight for a just and sustainable future will be a long haul. Ensuring that climate action includes joy—whether through deepening a sense of community or tapping into personal strengths—makes activism more enduring and effective. As Johnson writes, "There is something meaningful each of us can contribute to climate solutions. This is the work of our lifetimes."[3]

EXAMPLE STORY 2: MISSION 66

Another way in which energy weaves through national park experiences—and therefore should be thoughtfully interpreted—is that park visitation itself relies on fossil fuel-derived energy. Today, the majority of visitors use private cars to access parks, both to get to the park and to move around inside of it. After all, the infrastructure of parks, including paved roads and visitor amenities, are primarily designed to accommodate cars, making the energy that fuels them intrinsically tied to the experience of visiting a national park.

This wasn't accidental; park visitors in the 1940s and 1950s were dissatisfied with the state of NPS infrastructure and pushed park leadership toward development. Their voices were heard in the form of Mission 66, a 10-year initiative that spurred a flood of car-centric development across the NPS.[4] Mission 66 was also supported by the American Automobile Association, which was involved in planning the project and co-sponsored the kickoff dinner.[5] Car and fossil fuel companies stood to gain from expanding NPS car infrastructure. Today, many parks still rely on infrastructure developed during the Mission 66 campaign. What's more, the project's ethos—that national parks must cater to an increasing number of visitors through car access—is embedded in how many people think about parks today (Figure 4).

Interpreting this history is essential, as it illustrates the complex relationship between NPS sites, energy, and climate change, and underlines a consistent tension between preservation and recreational enjoyment. The presence of car infrastructure in parks is beneficial for access and promoting park visitation. However, research shows that car-based trips to national parks are a major source of carbon emissions. For example, at Yellowstone National Park, carbon emissions from visitors driving to and around the park contribute an estimated 295 million kilograms of greenhouse gases annually.[6] Visitor emissions accounted for 90% of Yellowstone's total carbon footprint, and other parks have found similar ratios in their own emissions evaluations.

The *History & Hope* framework allows interpreters to create connections between stories of energy development in the past and the climate crisis today. The story of Mission 66 and car-centric development underscores the fact that the way things are today was never inevitable but rather was the result of people's choices and hard work. People in the 1950s envisioned a future of national parks that was developed for car access and worked toward that idea. *History & Hope* supports interpreters in telling this story in all its complexity, even as it can be uncomfortable to discuss the impact that park visitation has on climate change. By articulating this connection, though, interpreters can lay the groundwork for meaningful action.

Naming the connection between visitor emissions and climate change has spurred action from NPS, by allowing parks to identify areas in which they can reduce emissions. One way NPS is doing this is by providing clean-energy group transit options for visitors to reduce reliance on private cars. The *Green Parks Plan*, which sets sustainability goals for all sites in the national park system, aims to transition 100% of visitor transit fleets in parks to electric or zero emissions vehicles.[7] In response to this goal, parks are taking action. In 2024, Zion National Park unveiled NPS' first all-electric shuttle fleet, and other parks such as Acadia, Grand Canyon, and Yosemite are also

FIGURE 4. The Mission 66 campaign developed car infrastructure in the National Park Service that allowed a flood of visitors into parks. NATIONAL PARK SERVICE HISTORY COLLECTION

making investments in zero-emission transit. This kind of action is only possible when parks are able to articulate the connection between park visitation and climate change. Interpreting the history of cars in parks is a crucial step towards building that understanding.

NPS interpreters can employ the *History & Hope* framework to connect this story to climate action for visitors using the United Nations Sectoral Solution to Climate Change. The sectoral solution lays out a roadmap showing how greenhouse gas emissions can be reduced in order to limit global temperature rise.[8] Referencing this roadmap can fight the popular idea that climate action is impossible or fruitless and point people towards meaningful ways to take action. Telling the story of NPS's development of car infrastructure points to one aspect of the roots of the climate crisis. Showing a roadmap toward a decarbonized future and citing examples of how NPS is taking action through the Green Parks Plan uses the story to push visitors to action.

EXAMPLE STORY 3: ROSIE THE RIVETER

Rosie the Riveter/WWII Home Front National Historical Park in Richmond, California, is another site whose connections to energy and the climate crisis might not seem obvious. However, we've identified two ways in which one of the park's primary interpretive themes—wartime total mobilization—connects to the climate crisis in ways that are both illuminating and inspirational.

History & Hope's primary authors, Donna Graves and Elizabeth Villano, first crossed paths at this site—Graves helped to establish and develop the park, while Villano was a park guide. During WWII, Richmond earned the title of "Purple Heart City" for accommodating an explosion of new workers at the Kaiser Shipyards, which became the world's most productive shipbuilding facility (Figure 5). This was a period of wartime total mobilization—when government, businesses, communities, and individuals quickly and radically transformed their daily lives to meet an enormous challenge. We recognized that this narrative offered a hopeful precedent for engaging visitors in conversations about the rapid social, economic, and political changes we will need to address the threats of climate change now.

The connection between the Home Front era and the climate crisis became even more apparent when we realized

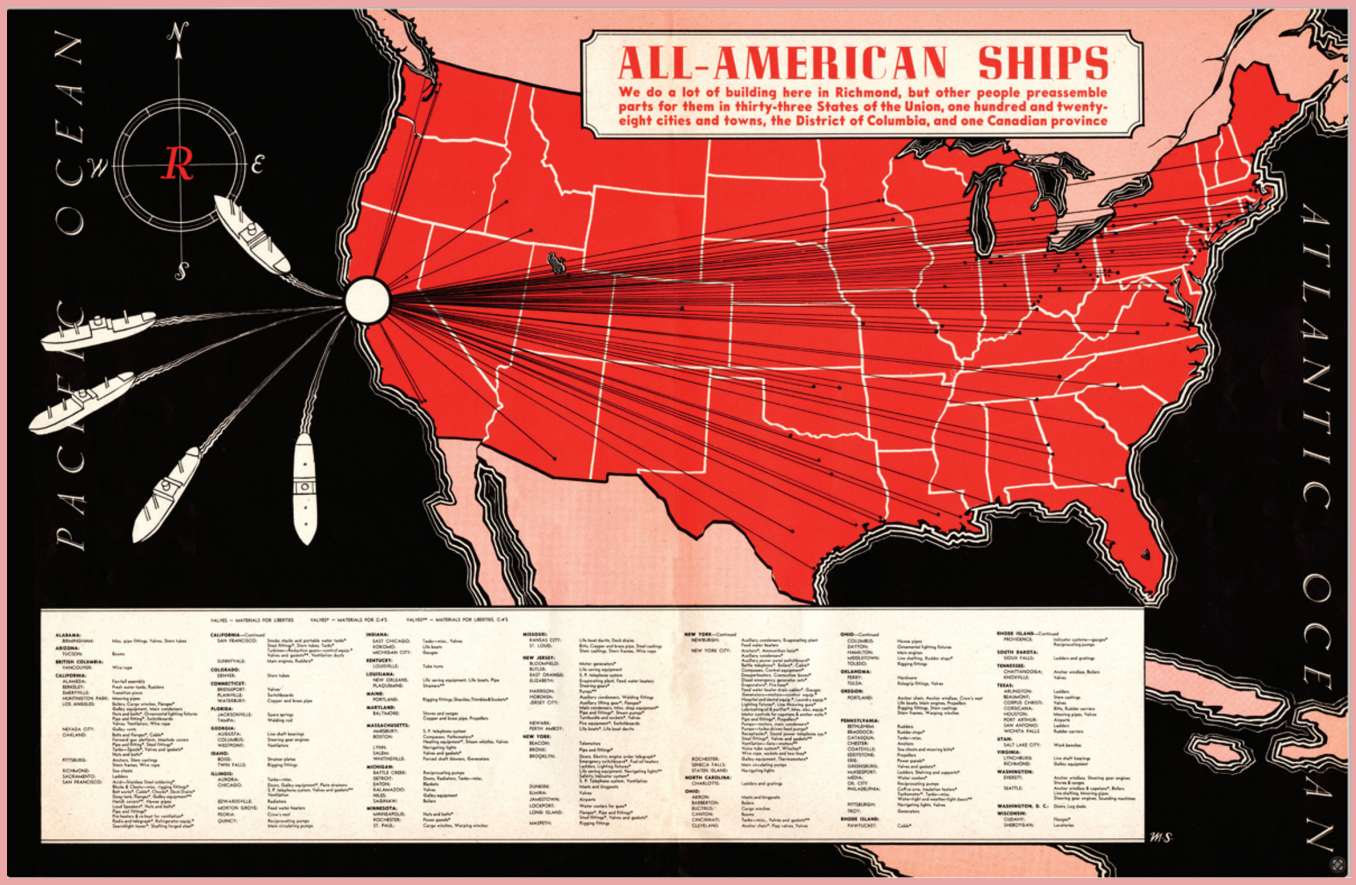


FIGURE 5. The Richmond shipyards relied on a complex network of preassembled parts shipped from across the country and Canada. Completed vessels then sailed off through the Golden Gate to the Pacific Theater. COURTESY OF THE KP HERITAGE RESOURCES ARCHIVE, KAISER FOUNDATION HEALTH PLAN

that WWII total mobilization also marked a pivotal moment in the history of greenhouse gas emissions (Figure 6). The post-war boom in manufacturing, land development, transportation infrastructure, and consumerism led to a sharp and sustained increase in carbon emissions that accelerated today's climate crisis. Realizing this connection helped interpreters strengthen the relevance of climate change interpretation at the park.

Interpreters began posting a whiteboard that asked visitors this question: "During WWII our country mobilized around a common cause. What issue do you want to mobilize around next?" with space for visitors to post responses. Climate change was always the top choice. This opened the door to deeper conversations with visitors about the importance of collective action on climate, just as people had collectively mobilized in WWII. At the same time, the park offered a cautionary lesson in the unjust incarceration of Japanese Americans during WWII, reminding visitors that crises can not only inspire "total mobilization" but can lead to scapegoating of marginalized groups—another crucial lesson to bring to climate action.

The story of wartime mobilization demonstrates that collective action can achieve a level of change that appears out of reach to individuals. When history is told as a series of discrete dates, ideas, and events, it can be hard to remember that enormous changes were shaped by people grappling with questions and uncertainties similar to those we feel today. In hindsight, major innovations, social movements, and historical events may seem as though they were destined to happen. Interpreters can help visitors realize that they were never inevitable, and, like those who mobilized during WWII, people today have the agency to help determine the future of climate change.

Using the *History & Hope* approach to interpretation can inspire people to create collective change, as people did in WWII, by encouraging visitors to embrace the power of communication as a tool for climate action. As scientist and climate communicator Katharine Hayhoe emphasizes, "The most important thing you can do to fight climate change: Talk about it."[9] One of the simplest and most effective actions individuals can take is to share their concerns about climate change with friends, families, and civic leaders. Humans are deeply social beings who respond to group norms, and interpreters can remind visitors that the more we talk about the climate crisis, the more we can shift social norms away

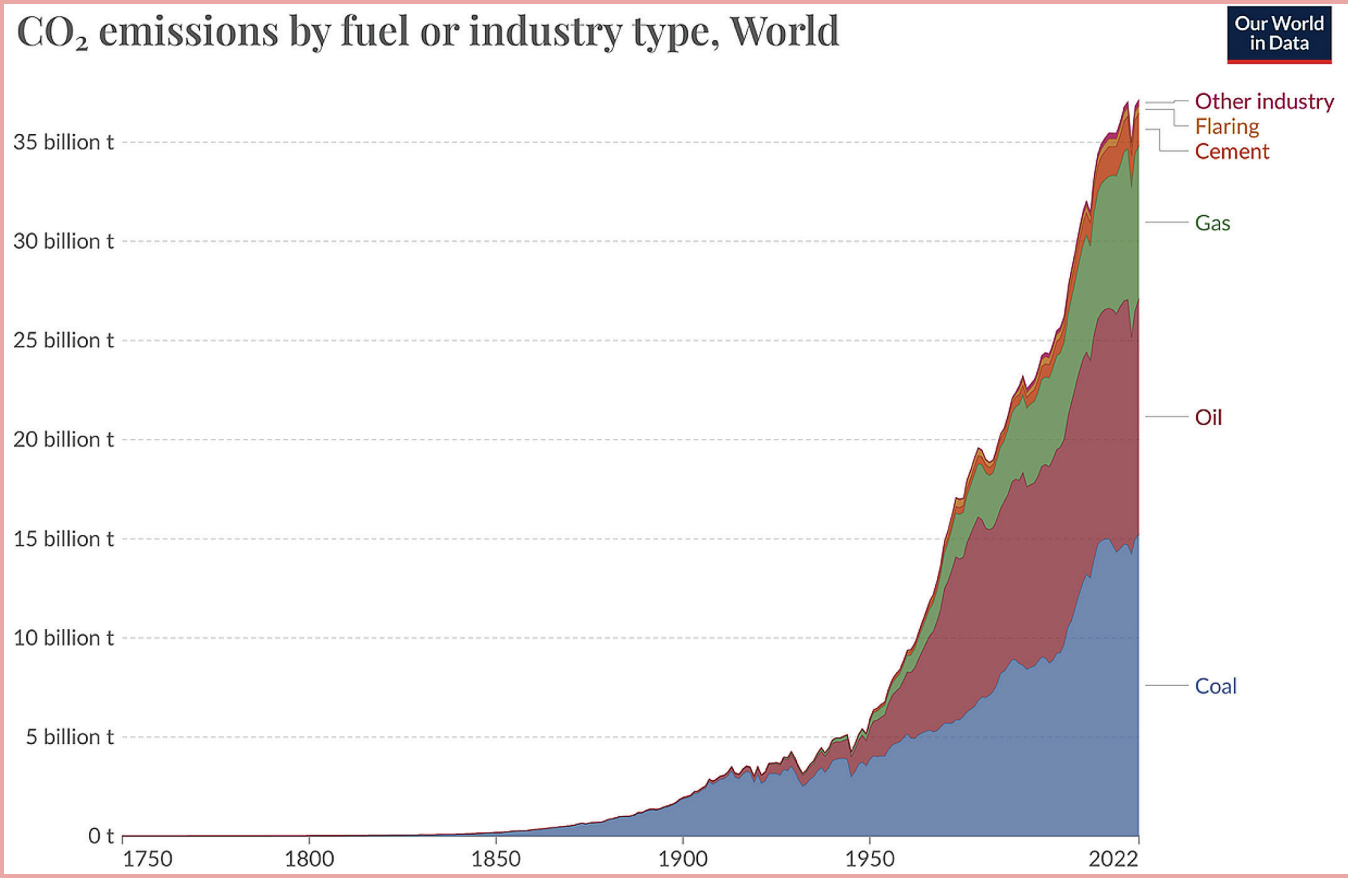


FIGURE 6. The years during and after WWII represent a major acceleration of greenhouse gas emissions. OUR WORLD IN DATA (https://ourworldindata.org/co2-emissions)

from avoidance and toward collective action. Talking to each other also helps create a social mandate for climate action, driving change from businesses, government, and policymakers. By connecting the story of wartime mobilization to climate communication, interpreters can inspire hope. People have made big changes before, and by taking action, people can do it again.

CONCLUSION

Virtually anywhere people are part of the landscape, there are important climate stories to share. Heritage resources—such as historic sites, buildings, landscapes, infrastructure, museum collections, and public monuments—carry narratives and emotional connections that can mobilize climate action. These resources are not only emblems of our shared history, but also convey stories essential for addressing the climate crisis. Their stories possess explanatory, cautionary, and inspirational power that can help visitors confront an uncertain future while understanding that we still hold the power to effect change.

Climate change is a crucial topic for NPS sites because its impacts are far-reaching and devastating. It threatens the future of beloved ecosystems, wildlife, and historical and archaeological sites, as well as the health and safety of the people who visit and staff parks. The intertwined history of energy and climate change means that parks can and should interpret the history of energy—making visible the ways that energy has shaped the world around us and helping visitors understand its role in parks and their communities. Energy stories shed light on the path society has taken over time that has led us to this current moment of climate crisis.

Energy has been a driving force behind many of the immense transformations in society. Understanding this legacy, and society's capacity to adapt and innovate, reveals possibilities for change today. Too often, discussions about both climate change and energy systems are made so abstract and scientific that we forget people were the driving forces behind them. The *History & Hope* framework helps visitors connect past actions with the present, empowering them to see that just as people in the past made choices to shape their future, they too have the power to influence today's energy systems for a more sustainable and just tomorrow. By making history a vivid account of people creating and responding to change, park rangers can dismantle the common notion of history as an inevitable force beyond our control. Reframing these narratives empowers visitors by restoring a sense of agency and inspiring them to take meaningful action.

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ENDNOTES

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