

McKinsey & Company: Transition to carbon neutrality will cost \$275 trillion

By Lila Luthy

In January 2022 the global management consulting firm McKinsey & Company released a report entitled “The Net-Zero Transition,” which details a pathway to carbon neutrality by 2050. The report identifies climate change as one of the greatest threats to the global economy and concludes that “the rewards of the net-zero transition would far exceed the mere avoidance of the substantial, and possibly catastrophic, dislocations that would result from unabated climate change.” This conclusion emphasizes the need for a dramatic change to global operations.

McKinsey & Company finds that the current global trajectory suggests it is unlikely that the planet will stay below 1.5°C of warming from pre-industrial levels. In 2018 the Intergovernmental Panel on Climate Change (IPCC) identified 1.5°C as the number that the planet would need to stay below to avoid the worst effects of climate change. While many countries and businesses have pledged to reduce their carbon emissions, there has been little tangible action towards emissions reduction. The report urges more dramatic steps be taken to protect the planet and global economy.

The report frames solving the climate crisis as balancing an equation so as to equal the carbon atmospheric input to the amount of carbon being stored or taken out of the atmosphere. McKinsey & Company propose a solution that would result in a significant universal reorganization of “power, industry, mobility, building, agriculture, forestry, and other land use, and waste” systems, emphasizing that “net-zero emissions can be achieved only through a universal transformation of energy and land-use systems.” These changes would likely have front-loaded costs that would expose participants to some amount of financial risk. The associated costs would also likely be distributed unevenly as fossil fuel producing countries like Russia, Ukraine and much of the middle east would be more affected by these shifts. In order to make this solution viable, the report suggests there must be cooperation among all countries to support those with the greatest financial burden.

McKinsey & Company estimates that the transition to carbon emission neutrality would cost \$9.2 trillion annually, amounting to roughly \$275 trillion before 2050. However, the report emphasizes that much of the associated cost has a high return profile and as such should be seen as an investment. Further, the costs associated with failing to alter global systems and allowing climate change to proceed unchecked is likely to be much greater than the cost to address it. Thus, front-loading the cost of climate change will likely mitigate future costs that would occur from inaction.

The central issue is funding. The report identifies the need to prioritize an approach that “would raise capital at the speed and scale needed, and incentivize the deployment of this capital.” However, McKinsey & Company cautions that balancing multiple interests and public and private investments could create complications down the line.

Further, while a high return on investment is likely a predicted outcome, McKinsey & Company also acknowledges the reality that things could go poorly and investments not be returned. The report identifies one of the central challenges to climate action as “balancing the substantial short-term risks of poorly prepared or uncoordinated action with the longer-term risks of insufficient or delayed action.” There is not enough time to craft a perfect plan but moving forwards too quickly could result in catastrophe. This is evident in the electric sector. McKinsey & Company predicts that electricity prices will rise in the short term and then fall in the long run because renewable energy is

relatively cheap. However, the price of electricity will ultimately be dependent on the grid reliability. If the grid is built too quickly and requires constant repairs or cannot deliver the desired power, electricity cost will instead rise. Therefore, future outcomes will depend on the quality of the infrastructure built now.

The report also highlights that the transition to a carbon neutral economy is predicted to result in the creation of 200 million new jobs and the loss of 185 million jobs. This job loss will disproportionately affect certain regions, countries, and populations involved in the production of fossil fuels. Therefore, these individuals have a greater vested interest in maintaining the status quo. The firm warns that these transitions must be implemented carefully to mitigate backlash from adversely impacted parties to be successful.

Further, the report recognizes that a redesign of the global economy could result in supply chain shortages that would impact consumers. Thus, frustrations resulting from shortages may encourage individuals to resist the changes necessary to transition the economy. Transitions then must be handled both timely and thoughtfully to achieve the desired outcome.

Only a complete transformation of global systems will ward off the worst effects of climate change.