Accelerating sustainable infrastructure: An investor's perspective

Sadek Wahba, chairman and managing partner of I Squared Capital, explains how to overcome challenges for funding sustainable infrastructure and why equitable access is so important.

Sadek Wahba

Chairman and Managing
Partner of I Squared Capital

As climate change increases the frequency and severity of extreme weather events, essential structures and systems such as buildings, power stations, and roads will need to adopt sustainable measures. In turn, sustainable infrastructure will play a key role on two fronts: first, helping to mitigate the effects of climate change, and second, future-proofing existing assets while building new ones. In this lightly edited interview conducted by Tony Hansen of the Global Infrastructure Initiative, Sadek Wahba explains how collaboration between governments and the private sector can address the sustainability of critical infrastructure, as well as how inclusive project development can help ensure no communities are left behind.

McKinsey: What is the investment case for sustainable infrastructure, and what are some of the most exciting growth opportunities?

Sadek Wahba: We believe sustainable infrastructure investment will be a fast-growing investment opportunity in the coming years. Nearly every major economy has committed to the Paris Agreement and the UN Sustainable Development Goals. Recent projections from the International Renewable Energy Agency show that achieving global Paris targets by 2050 requires investments of $4.4 trillion per year into low-carbon energy alone.

Some of the most exciting potential growth opportunities can be found in solving for renewable-energyintermittency. Battery-powered renewable projects are starting to compete with fossil fuels to provide "on-demand" power. Because land and population density are an issue in many places—notably Asia—we are seeing promising growth opportunities in proven technologies such as floating solar and floating wind turbines, as well as offshore wind.

Finally, the transport sector shows promise as well, with the rapid adoption of renewable technologies and the replacement of diesel and gasoline vehicles with electric vehicles, hydrogen-based vehicles, and the related infrastructure. The ultimate goal is for sustainable infrastructure not to be seen as an investment opportunity in the future because all infrastructure will already be sustainable.

McKinsey: What challenges have you seen in funding these investments, and what will it take for investors to fully embrace the sustainable-infrastructure opportunity?

Sadek Wahba: Investment and technology innovations will inevitably come at a price. Sustainable infrastructure is more expensive than conventional infrastructure, at least until we reach sufficient scale. Building enough wind turbines to reach net-zero carbon emissions globally by 2050—the goal of the upcoming United Nations COP26—requires 1.7 billion tons of steel, which is enough to build the Golden Gate Bridge more than 22,000 times over. Wind farms require more steel for each unit of energy they produce than other energy sources, and steel production still relies on coal for its energy production. The question is—who will pay for this increased cost?

Until now, taxpayers shouldered the costs of wind and solar in the form of subsidies. This means user fees across multiple sectors need to be introduced or increased, and targeted mechanisms need to be developed to ensure an equitable distribution of costs. These issues also apply to emerging markets, where you have the added challenge of attracting global investors.

McKinsey: What steps can governments take to broaden their roles and help catalyze sustainable infrastructure projects?

Sadek Wahba: To begin, governments need sustainable regulations that are not subject to political changes every few years. This will allow investors to focus on the long term. Next, governments can work with the private sector to develop projects, initiatives, and structures that will "crowd in" private sector investment.

I have proposed the creation of a government-sponsored infrastructure bank in the United States that consolidates public and private funds and invests in public projects in the form of loans or direct-equity investments.

One of the bank's goals could be to invest in sustainable infrastructure. And as part of the selection process, proceeds would be tied to delivering positive sustainability outcomes. The bank can also support the underserved by investing in inner cities or low-population-density towns. Finally, the bank can use profits to subsidize projects in less wealthy areas at lower returns or take a more active role in the R&D required for decarbonization pathways.

McKinsey: What do you see as the biggest challenges for asset management over the next ten years, and what strategies are you putting in place to deal with these challenges?

Sadek Wahba: The greatest challenge will be successfully navigating an increasingly complex maze of physical and transition risks, including regulatory changes. By physical risk, I mean the effects of climate change that are impacting our environment with increasingly volatile weather patterns. These events have a direct impact on infrastructure assets.

A good asset manager will invest with flexibility built into their operations. They will also look to diversify their investments across regions and sectors using well-defined risk models that internalize environmental, social, and governance (ESG) criteria, rather than treating ESG as an appendix. It is also important to develop long-term sustainability road maps with portfolio companies to ensure maximum sustainability value can be extracted and to leave a long-term and credible sustainability legacy at exit.

McKinsey: How can we deal with critical infrastructure that cannot adapt to climate change, and how do we finance all that needs to be done?

Sadek Wahba: We should recognize that costs of an orderly transition are almost always going to be lower than the costs of a disorderly transition, and we should identify the sectors that are most vulnerable to climate change, as well as the regions that will be most impacted.

Over time, it is expected that few critical infrastructure systems will be left untouched by climate change. Using quantifiable data, we can model and rank which critical infrastructure systems and what locations are most susceptible to climate change. Public–private partnerships are often a good way to deal with those sectors and regions, rather than having the government shoulder the funding and execution burden.

McKinsey: The COVID-19 pandemic has highlighted the challenge of equitable access to infrastructure. How do we better address this with both existing and new infrastructure?

Sadek Wahba: We need to change how we make the case for infrastructure investment by looking at true costs and weighing them against the social benefits—job creation, social equity, and accessibility—and environmental and economic criteria.

The recent discussion around the US infrastructure bill included debate on whether

to increase user fees. One group felt these fees were highly regressive, while another group supported user fees instead of funding through increased government deficits. On this point, the federal gasoline tax, which helps maintain the US highway system, has remained unchanged since 1993. This means it has dropped by more than 70 percent in real terms. With electric vehicles, the revenues from the federal gasoline tax will further erode. Yet there has been little serious research on the degree to which user fees are regressive.

Voices highlights a range of perspectives by infrastructure and capital project leaders from across geographies and value chains. McKinsey & Company does not endorse the organizations who contribute to Voices or their views.

Sadek Wahba is chairman and managing partner of I Squared Capital.