

# Major Economies Business Forum

## on Energy Security and Climate Change



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## Major Economies Business Forum: Climate Investment and Finance

### KEY MESSAGES

- Both the private and public sectors must continuously invest in facilities, infrastructure, technologies, and human capacity to improve economic welfare and productivity and generate returns that provide adequate resources for future investments.
- Policies to mitigate greenhouse gas (GHG) emissions and adapt to climate change will add to investment challenges and need to be integrated into mainstream investment decisions across the entire economy, especially in energy, energy intensive industry, transportation, agriculture, and land use.
- In the energy sector alone, meeting the challenges of growing global demand for energy and increasing energy access while reducing emissions would require thousands of multibillion-dollar investments through 2030.
- Most of these investments will be made by business and industry to provide consumers, other businesses, and governments with resources, processes, products, and services. To meet obligations to shareholders, these investments must provide an adequate return on capital.

- Firms make investment decisions based on assessments that balance expected returns and technological, market, regulatory, and other risks over a project’s lifetime.
- Many of the technology systems that show promise for mitigation face high costs, limited or no commercial experience, and political controversy.
- Higher costs, the potential for permitting and regulatory delays, public acceptance, and policy and legislative uncertainty add to perceived risks. When risks are judged too high firms reject projects, defer decisions, or develop alternative approaches.
- Major investments require approvals not only by the operating company or investment manager, but also by financial providers and regulatory and permitting agencies. Each can reject proposals or require changes that increase costs and delays and decrease anticipated returns.
- Climate policies must work with existing mainstream investments and provide business with the clarity to design projects with the confidence that investments can go forward in a timely way and can generate sufficient returns.

## INTRODUCTION

Efforts to mitigate GHG emissions add cost and complexity to the energy-related investments needed to meet growing global demand for energy and increase the availability of energy for the nearly two billion people without access today. A transformation of the magnitude and at the pace being contemplated in the negotiations would require tens of thousands of individually multi-billion dollar investments in facilities and associated infrastructure.

Investment decisions do not take place in a vacuum. Firms develop investment plans on the basis of risk assessments that balance expected returns against risks over a project’s lifetime. Many of the technology systems—such as biofuels, carbon capture and storage (CCS), and nuclear power—that

may play a prominent role in reducing global emissions significantly are not currently commercial or face significant political, market, and societal challenges that add to their risks.

In previous issue papers (available at [www.bizmef.org](http://www.bizmef.org)), the Major Economies Business Forum has addressed many aspects of the investment challenge. These include, for example, implications for trade and competitiveness, how emerging institutions such as the Green Climate Fund, Technology Executive Committee and Climate Technology Center & Network could benefit from regular engagement with business, and the need for proper enabling frameworks, including a predictable regulatory environment, if investments are to be made in an efficient and timely manner.

Here we highlight the essential role of business in global deployment of existing and innovative technologies to mitigate GHG emissions and adapt to climate change. Large-scale deployment of new technologies would require massive investment in new facilities, products, and processes (primarily by the private sector) and in essential infrastructure (by both the private and public sectors). Obviously, finance and financial transfers will be key issues for investment.

### **POTENTIAL SCALE AND SCOPE OF THE INVESTMENT AND FINANCE CHALLENGE**

The long-term objective of the UNFCCC is to stabilize GHG concentrations at a level that prevents dangerous anthropogenic interference with the climate system. Stabilization would require a transformational change in the global economy. In particular, stabilizing concentrations of carbon dioxide (CO<sub>2</sub>) requires that eventually net emissions must fall to zero. Many of the technologies that would be needed to achieve such a goal—such as nuclear power, renewables, CCS, etc.—are comparatively expensive, currently not commercially available, politically unpopular, or any combination of these. Consequently, there is little experience and significant uncertainty concerning what actual costs and other challenges might be to large-scale commercialization.

Nevertheless, there is every reason to believe that the costs would be quite large and have tremendous implications for investment. A 2008 analysis out of the [Massachusetts Institute of Technology](#)

(MIT) indicated that achieving a 50% reduction in global emissions by 2050 could require a doubling of investment in technologies and infrastructure for energy supply, and with significant increases in international wealth transfers of over \$400 billion per year by 2020 and over \$3 trillion per year by 2050, if implemented as described in the Bali Action Plan. The International Energy Agency found similar results for the scale of additional required investment in energy supply and distribution.

Clearly, changes of this scale and pace would have massive implications for investment and finance by both the private and public sector. In the area of finance, the issue is not so much the scale of funding, though it is quite large, but whether returns generated by the investments would be sufficient to justify and manage the cost of finance.

Returns are an issue because of the added risks and costs associated with mitigation investments, many of them for technologies that are politically challenged or currently noncommercial. For example, investments in CCS are not only more costly and based on technologies that are not available commercially at large scale in the power sector, they cannot proceed without a massive investment in CO<sub>2</sub> pipelines and facilities for injection in geological formations and a regulatory regime that provides predictability with respect to liability and other issues.

To make a major contribution to mitigating CO<sub>2</sub> emissions, the amount of CO<sub>2</sub> that must be transported to storage requires a major investment in pipelines, compressors, reservoir management, and other

infrastructure. At a scale of 3.7 gigatons of CO<sub>2</sub> (1 gigaton of carbon) per year, CCS must manage logistics to transport and store about 80 million barrels of compressed CO<sub>2</sub> per day, a volume comparable to daily global oil production. Obtaining appropriate permits and access to right-of-way could be a costly and time-consuming process that could inhibit investment, even as other policy incentives might encourage it. Getting the balance right is critical.

## PRIVATE SECTOR INVESTMENT DECISIONS

Private sector decision-makers, as well as financial institutions and regulatory and permitting authorities, subject multibillion-dollar investments to intense scrutiny. Typically, investments are made to advance corporate strategies based on market opportunities and a careful assessment of risks that may affect commercial viability over the life of the project. Among others these include:

- technological risks, especially when deploying advanced, currently noncommercial technologies;
- market risks from changing customer preferences and the behavior of competitors; and
- political risks, such as legislative and regulatory aspects that could delay, enhance or prevent the investment.

Multinational companies face additional political and regulatory risks from doing business in many jurisdictions around the world. Ultimately, investment decisions must be approved not only by the operating company making the investment, but also

by other entities, such as financial institutions and regulatory bodies, with the power to approve, reject, or alter proposals.

To be sustainable to shareholders and to secure external financing, investments must generate an adequate return. This can be particularly challenging for costly, long-lived investments that require a stable or predictable legislative and regulatory regime. For example, investments may be subject to the risk that beneficial mandates or subsidies may be phased out, or that policies that were anticipated to disadvantage competitors may never be fully implemented.

Energy-related investments are particularly subject to political concerns as debates play out over the fate of coal and nuclear, and various options become tied to subsidies, mandates, bans, or climate regulations. Permitting issues and related judicial and appeals processes, discussed in a previous issue paper on [Predictable Regulation](#), can result in major delays to energy projects of all types, renewables as well as fossil fuels. Even the anticipation of delays can raise up-front finance costs through add-ons referred to as risk premiums.

Public finance can be a means to leverage private sector investments, for example by offsetting the added technical and political risks associated with introducing new, currently non-commercial technologies. Previously, BizMEF provided views on how the Green Climate Fund and other public sources might best be used leverage private funding ([Green Climate Fund and the Role of Business](#)). However, pledged public funding has never been proposed as a means to offset the added costs of financing long-term, deep emissions

reductions (see BizMEF's [Trade, Investment and Competitiveness](#) paper).

## CONCLUSION

Private sector investments require commercially viable projects. To be economically sustainable, firms must deliver returns to shareholders by supplying customers with processes, products, and services that they are willing to buy. Besides operating companies, major investments

also require approval by financial institutions and regulatory authorities—each with separate criteria for decisions. An agreement to achieve ambitious goals to mitigate emissions and adapt to climate risks could not ignore these requirements. In particular, policies and regulations must provide business, as well as other institutions in the approval process, with clarity on requirements so that projects can be designed with confidence that investments will be approved and projects built.

Australian Chamber of Commerce and Industry  
BusinessEurope  
BusinessNZ  
Canadian Council of Chief Executives  
Confederation of British Industry  
Confederation of Indian Industry  
Dansk Industri  
Federation of German Industries – BDI  
Iniciativa para el Desarrollo Ambiental y Sustentable — IDEAS (Mexico)  
International Organisation of Employers  
Mouvement des Entreprises de France  
Nippon Keidanren (Japan Business Federation)  
Polish Confederation Lewiatan  
U.S. Chamber of Commerce, Institute for 21st Century Energy  
U.S. Council for International Business

## ABOUT BIZMEF

The Major Economies Business Forum on Energy Security and Climate Change (BizMEF) is a partnership of major multi-sectoral business organizations from major economies. Modeled after the government-to-government Major Economies Forum, BizMEF is a platform for these groups to:

- promote dialogue and exchange views on climate change and energy security across a broad spectrum of business interests including major developed, emerging, and developing economies;

- highlight areas of agreement among participating organizations on the most important issues for business in international climate change policy forums; and
- share these views with governments, international bodies, other business organizations, the press, and the public.

Organizations that have participated in BizMEF meetings represent business groups in Australia, Brazil, Canada, China, the European Union, Denmark, France, Germany, India, Italy, Japan, Mexico, New Zealand, South Africa, South Korea, Turkey, the United Kingdom, and the United States. Collectively, BizMEF organizations represent more than 25 million businesses of every size and sector. Because BizMEF partnering organizations represent a broad range of companies and industries—including energy producing and consuming companies as well as energy technology and service providers—the partnership is able to provide robust and balanced views on a range of issues

For more information on BizMEF, please visit our website at:  
[www.majoreconomiesbusinessforum.org](http://www.majoreconomiesbusinessforum.org).