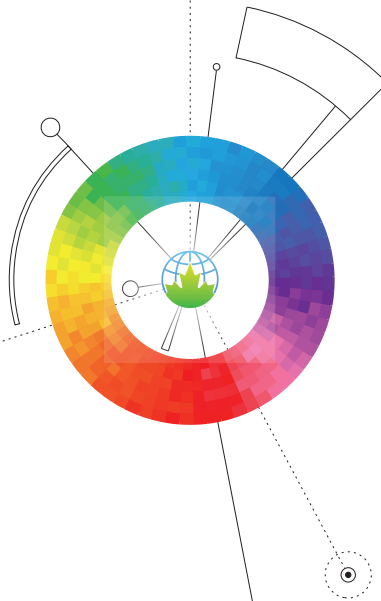


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GUEST EDITORIAL:
**ASIAN
DEVELOPMENT
BANK**



Clean Energy and the Asian Development Bank

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The Asian Development Bank (ADB)¹ is committed to expanding support for access to affordable and sustainable energy in the Asia-Pacific region. As part of this, the ADB has established a goal of increasing climate investment to \$6 billion annually by 2020 (of which \$4 billion will target mitigation and \$2 billion adaptation). Estimates show that in 2016, climate finance from the ADB's internal sources reached a record \$2.65 billion for climate mitigation and \$1.07 billion for climate adaptation, and that over 50 percent of these investments were made in the energy sector. Consistent with global initiatives of the United Nations Sustainable Development Goal number 7 (SDG 7) and the Paris Climate Accord, it is expected that the ADB's spending on climate change will increase to around 30 percent of its overall financing by 2020.

These efforts are being carried out in a context of changing needs within the ADB's developing member countries (DMCs) as they move towards becoming middle-income countries that require support beyond lending activities. Advanced technologies are evolving rapidly and will play an increasingly important role in meeting energy-related goals in parallel with their Nationally Determined Contributions (NDCs) as part of the Paris Agreement. This will necessitate the growth of technical and financial assistance to support the deployment of advanced technologies and business models that have the potential to accelerate energy system development and enable DMCs to leap frog the development pathways followed by developed economies in the past.

While various examples of rapid innovation can be cited in non-energy sectors (i.e., IT, banking, communications), energy systems are highly interrelated across energy vectors (gas, oil, electricity) and infrastructures (transport, water, urban form) requiring specific consideration. Supporting innovation in energy systems means contemplating a number of characteristics, such as:

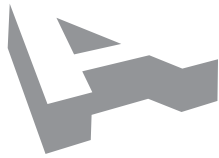
- High capital investment requirements
- Long-life expectancy of energy infrastructure (often in excess of forty years),
- Country specific demand (i.e., industry-based loads) and natural resource endowments



Despite these challenges, the ADB believes that it is essential to leverage the opportunities that innovation can bring. Innovation and climate elements are encouraged as part of every lending project in the ADB portfolio, pushing countries to move beyond conventional approaches for benefits in the near term and increasing robustness for future developments. This includes innovation across energy efficiency, generation, networks—in technology, policy, and business models. Examples include a pilot carbon capture and storage project in Indonesia, photovoltaic deployments in Uzbekistan and Afghanistan, and electricity storage in Maldives. An innovative funding model is being developed to support multiple small-scale investments in the Pacific Islands. The ADB is also partnering with city and provincial governments to introduce high technology in major polluting sources such as; industrial sectors, transport, urban energy and utilities, and agriculture waste in Beijing and Tianjin-Hebei in the People's Republic of China.

The scale of investments needed to meet climate and development goals is immense—many times larger than the amount any one organization can invest. But the ADB's leadership to deploy advanced technologies in DMCs is filling a critical gap. These efforts will not only meet short-term needs, but also prepare countries and advance the technology applications specific to developing countries so that other organizations and the private sector can follow. The ADB will continue to innovate and build upon the work we have accomplished thus far, accelerating the uptake of advanced technologies and, in doing so, accelerate sustainable development.

¹The ADB, based in Manila, is dedicated to reducing poverty in Asia and the Pacific through inclusive economic growth, environmentally sustainable growth, and regional integration. Established in 1966, the ADB is celebrating fifty years of development partnership in the region. It is owned by sixty-seven members—forty-eight from the region.



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