Germany's challenges are symbolic of issues facing mature developed economies working to craft and finance a successful transition from an ageing energy system (largely built 50 years ago) to one that serves the needs of economies and societies for the next 50 years and beyond. It must also do so within sharply defined political constraints and changing business models. As further changes in rankings and balance scores may occur during the transitional period, Germany has been included in WEC's watch list. Additional countries on the watch list are the United Kingdom (UK), Japan, Italy, Mexico and the United Arab Emirates (UAE). Here, recent changes or unscheduled events that are not yet reflected in the data may lead to a change in Index performance, both positively in the case of Mexico and the UAE and negatively in the case of the UK, Japan and Italy.

By contrast, other countries have moved up the Index rankings with improvements in different dimensions. For example, the Philippines have continued their upward trend with constant improvements on all dimensions, including an increased diversity of electricity fuel mix. Yet the country continues to struggle with energy equity, as energy prices remain expensive and 17% of Filipinos continue to live without access to modern electricity services.[8] In Latin America, Colombia strengthens its overall Index position and continues to benefit from the energy security and sustainability impacts of hydropower, but its performance is still somewhat unbalanced with a relatively lower performance on energy equity. Overall, however, as an active member of the Rio+20 Summit (the United Nations Conference on Sustainable Development), the country is seeing the benefits of a sustained policy focus on how to address its energy trilemma.

Over the next five years we can expect to see more changes in Index performance as recent investments and policy decisions begin to take effect. These include the effects of industrialised emerging economies' efforts to manage energy demand growth and enhance environmental sustainability, the continued rapid growth in renewable energy in developed and developing countries, the United Nations (UN) Sustainable Energy for All initiative beginning to make inroads, and the tapping of other energy resources. For example, one key area is in Africa, where huge resources remain untapped: it is estimated that only 7% of the continent's hydropower potential and less than 0.7% of its wind potential has been used.[9] Using even a small proportion of these resources could have a transformational impact on the quality of life in Africa, as African countries economically progress and also on its contribution to the global economy.

Conclusion

There are significant challenges for governments, the energy sector and the financial community over the next 20 years and beyond to meet the projected investment needs to expand energy access, develop new energy technologies, replenish ageing infrastructure assets and associated supply chains, and make energy infrastructure more resilient. Greater engagement is needed from all stakeholder groups to build understanding and trust among policymakers, investors and the energy sector.

Leadership is needed from governments to set targets, develop strategies and create policies and regulations that give the energy and financial sectors certainty that their investments can be recouped and profits made, while meeting the needs of citizens and the economy as a whole.

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[8] Sustainable Energy for All (SE4ALL), 2013: Global Tracking Framework
[9] The Economist, 2013: Lighting up Africa, 18 November, 2013