



# Framing the right conditions for sustainable energy investment

Interview with Joan MacNaughton  
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## Why is the 2013 Trilemma Report focused on the case for investment?

Analysis shows that a huge increase is needed in the trend rate of investment in energy supply infrastructure to meet growing energy needs, and to deliver access to electricity and clean cooking facilities to the billions who currently lack it; a sum put at US\$37 trillion by 2035 by the International Energy Agency. But radical changes in the way energy supplies are produced, and technological advances which aim to reduce the environmental footprint of our production and use of energy, are posing significant challenges to those responsible for setting policy and regulatory frameworks. Yet when we interviewed CEOs and senior representatives from 40 global energy companies in our 2012 WEC Trilemma Report, we learnt that they consider those frameworks to be the most important determinant of their investment decisions. They called upon policy makers to set coherent and predictable policies; to set stable regulatory frameworks to support long-term investments and correct market failures in a way which levels the playing field for clean technologies; and to put more into joint Research and Development to help drive innovation in clean energy investment. Only by doing so, they reasoned, could countries succeed in attaining the three goals of a truly sustainable energy policy – energy security, energy equity (affordability/access) and environmental sustainability.

So this year we took these recommendations from industry to 50 interviewees – ministers and officials at national level, and top representatives of multilateral organisations – and sought their responses, as well as conducting our annual ranking of countries according to how well the data shows they are doing in tackling the Trilemma. We've sought to show why some countries outperform those you would expect to be their peers, and to identify what can be done to smooth the way to delivering more sustainable energy systems.

## So, what are the main messages coming from the policymakers?

Those in government interviewed for the 2013 Report broadly agree with the diagnosis we got from industry representatives last year. But they are finding it difficult to translate intent into effective action – given the speed with which the energy sector is changing, both technically and in terms of patterns of supply. They – like the CEOs last year – express concern over how the lack of a global agreement on tackling climate change, and hence a vision for the

target profile of the energy system long term, exacerbates the difficulty of crafting and implementing policies which are future-proofed. How to address this? The policymakers say it will take a much more proactive role from the energy industry in sharing their knowledge and experience with governments, who are often at a disadvantage in assessing the true state of the advances being made technologically, and who are anxious not to make decisions which could lock their countries into technologies which risk becoming obsolete. Policymakers also believe the energy industry could do much more to help build consensus on long-term energy goals. My own sense is that much of the industry would be quite willing to play their part in helping to design policy and to build consensus because they themselves recognise the complexity of the policy challenge and its importance in creating the right conditions for their businesses to thrive. But I do not think anyone should underestimate the resource demands which doing this properly would place on companies. Nor do I think policymakers can expect businesses to step up to the plate unless they recognise that companies can only justify such an investment of resources in the process if it is based on mutual trust and that it is seen to deliver some significant results.

## But isn't all this just so much wishful thinking, given the challenge of the Trilemma is to meet three often conflicting goals and the realities of the political process?

Clearly we are a long way from the ideal world in which policymakers are fully informed and seek to attain the best balance they can among the three dimensions of the Trilemma taking into account their national circumstances, including their political, social and economic characteristics and the strength or otherwise of their natural resource endowments, without being swayed by political fashion or other extraneous considerations. But what we find really interesting when we look at the results of our country rankings in the Energy Sustainability Index is how widely performance differs among apparently similar countries, and that the major explanation for the difference is the quality of their policymaking. And, moreover, that those at the top of the Index are characterised by a tradition of meaningful consultation in making policy, consistency and predictability in making regulatory decisions (including a lack of corruption), and clear long-term goals.

A few examples: Denmark, in the number two position,

has had long-term goals to decarbonise its economy which have facilitated innovative approaches such as in its use of renewables (supplying 35 per cent of its electricity) and its district heating. Sweden has a system of certifying there has been proper internal co-ordination among government departments before policies see the light of day. Such approaches enable a small group of countries to achieve an AAA score for the way in which they balance the three dimensions of the Trilemma.

Nor should we settle for thinking that only the richest countries who dominate the higher reaches of the index are equipped to perform well. Costa Rica, in 21st position, in Group III (GDP per capita of US\$6,000-\$14,300) sits higher than five countries in Group I above US\$33,500 per capita) and all but two in group II (US\$14,300-\$33,500). Colombia, another Group III country, is 24th and both have relatively balanced scores – AAB and AAC respectively – and the quality of their policies has been cited as attracting the investment they needed to achieve such relatively high positions, such as Colombia's Electricity Act of 1994. This has remained broadly unchanged for nearly 20 years, giving companies confidence in assessing the likely returns on long term investment projects.

**You've stressed the importance of investment. What specifically did the policymakers recommend on that?**

The lessons on investment in the 2013 Report focus on two areas – avoiding too simplistic an approach to assessing risk, and ensuring risk is allocated where it is most effectively managed.

Many interviewees in developing countries pointed to the oversimplified approach of many project developers and said potential investors needed to be less risk averse. Investors were inclined to attribute a high degree of risk to projects in a country with a poor credit rating even if the economics of, say, the power sector were strong and power projects should thus be assessed as very bankable.

On risk alignment, there was widespread recognition in 2012 as well as in this report that optimal risk alignment starts with minimising political and regulatory risk through well designed policy and regulatory frameworks, as I've already described. But risk could be better aligned between government and the private sector if the latter were more forthcoming in sharing with government its perspective about the underlying economics of a project. There is a clear need to attract investment from those not well represented here, such as institutional investors

and pension funds, less than one per cent of whose holdings are invested in the energy sector globally. Energy companies could help here by engaging with potential investors outside the sector whose understanding may need to be improved to give them confidence in calibrating risk. More use should be made of instruments such as insurance policies and loan guarantees to manage risk – an issue on which governments, multilateral development banks and project developers need to work together.

**Surely the priority for developing countries is to fill the energy gap in the most affordable way, which means usually through using fossil fuels?**

That is obviously a key need for such countries, but as well as bringing power to the villages and towns which have no electricity or are vulnerable to interruptions, governments in such countries should also be thinking about the advantages they will have if they avoid getting locked in to a high carbon infrastructure – which will create health and environmental problems down the line, and require further investment before the end of the lifespan of such projects. We have seen the consequences of disregard for environmental impact pretty starkly in some cities and countries round the world – London itself learnt the hard way, through the fatalities caused by smogs in the 1950s and 1960s, which led to the UK's clean air legislation. Perhaps most crucially, though, is our finding that there are countries – Brazil and Uruguay are prime examples – which have succeeded in meeting the growth in energy demand of growing economies in a more sustainable way. They have put a lot of effort into developing their renewable sector, with a large reliance on hydropower and more recently the development of vibrant wind sectors, enabling them to contain their environmental footprint. Innovative approaches to funding – wind power reverse auctions in the case of Brazil – have kept costs containable. Brazil has also been a trailblazer for biofuel, with at least half of all cars equipped to run on bioethanol as well as gasoline.

**So what is the key message you would like people to take from the Trilemma?**

I think the key message is that we face unprecedented challenges in delivering energy security, energy equity, and environmental sustainability; and industry and policymakers both have important roles to play in meeting them, and these are interdependent. So it is crucial that they take substantive steps to deepen their dialogue. 