

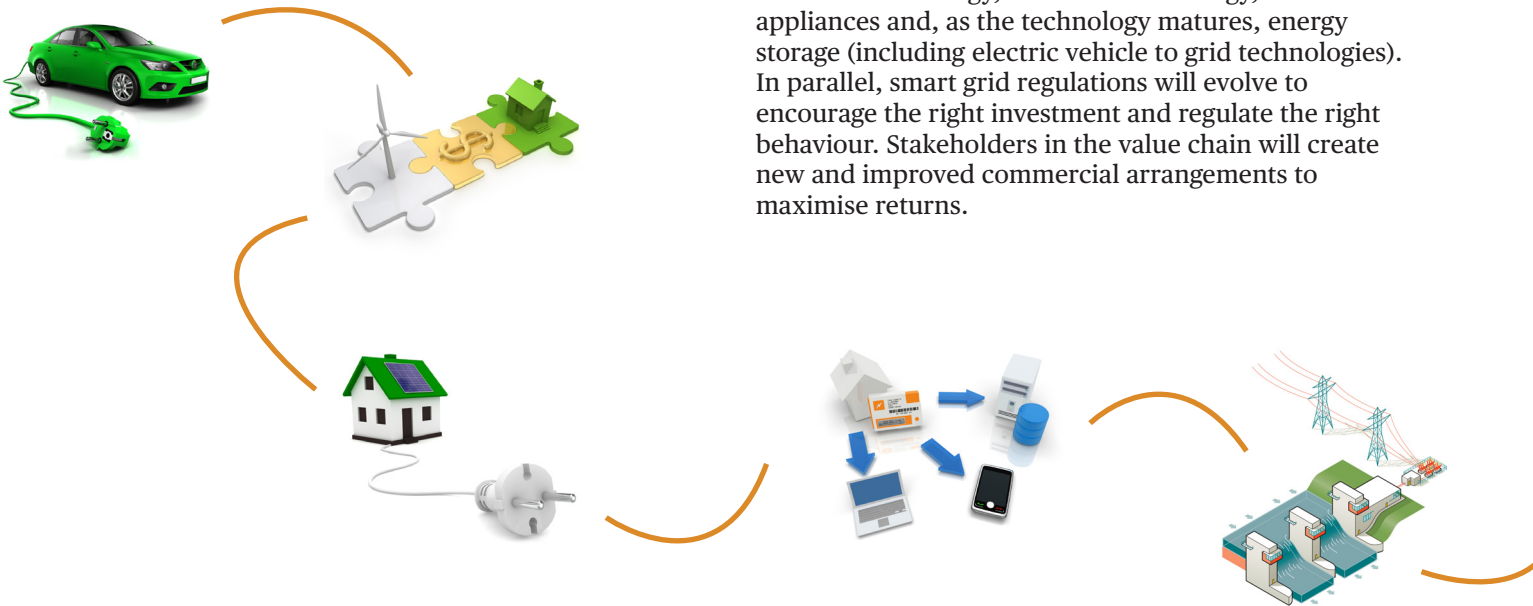
Bird & Bird & Smart Grids

In recent years Bird & Bird, through its extensive network of offices, has been involved in advising clients on smart grid projects in many jurisdictions. In doing so we have gained an international, multi-jurisdictional and multi-sectorial perspective and have seen first-hand that industry players face many common hurdles as well as common opportunities.

Global energy is getting smarter

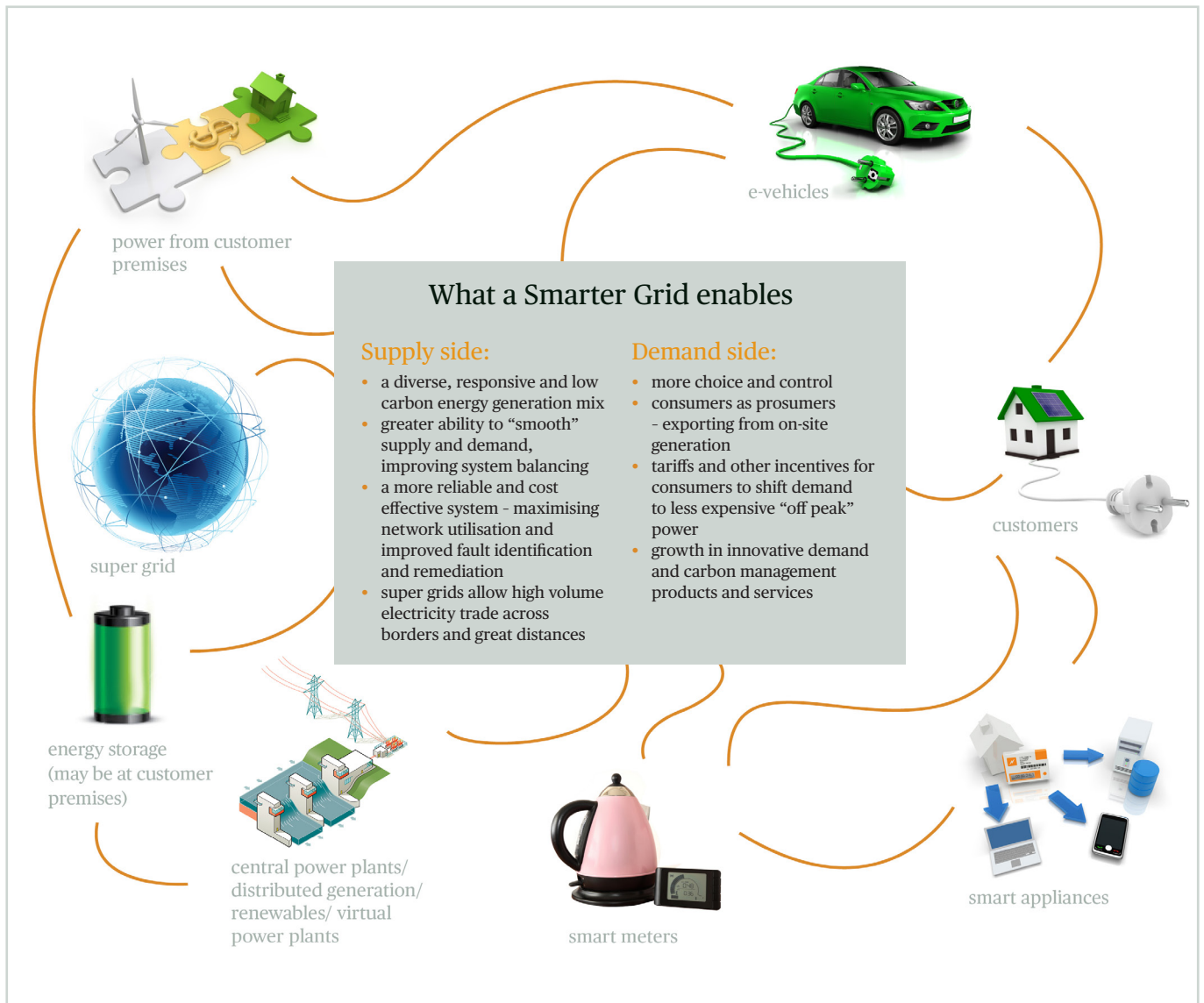
For decades even the most innovative energy markets have been constrained by the legacy of last century's technology. Now the demands of achieving a low carbon and sustainable economy, managing rising energy costs and ensuring energy security, combined with the enabling power of advanced communications and data management systems, are leading the global energy industry to invest in creating smarter grids.

The ideal smart grid enables a society to better monitor, interact with and control the activities of generation, transmission, distribution and supply. This control derives from two inter-related things: "smart data" and "smart infrastructure". The roll out of certain smart infrastructure, such as smart meters and associated communications technology, facilitates the creation, capturing, analysis, and appropriate use of "real time" smart data. This, in combination with other factors, will facilitate investment in further infrastructure such as renewable energy, decentralised energy, smart appliances and, as the technology matures, energy storage (including electric vehicle to grid technologies). In parallel, smart grid regulations will evolve to encourage the right investment and regulate the right behaviour. Stakeholders in the value chain will create new and improved commercial arrangements to maximise returns.



Smart grids are high on the agenda of many of the world's leading companies and governments. Smarter grids are being encouraged by a variety of investments, initiatives and policy changes. By way of example from some of the jurisdictions in which we operate: smarter grids are being encouraged by the EU's Third Energy Package; are the subject of pilot projects supported by Abu Dhabi's Regulation and Supervision Bureau; and, will receive significant investment through the Chinese Infrastructure Stimulus Plan.

"A member of our team recently advised a major retailer on its arrangements with an energy company to install and operate dynamic demand smart grid technologies"



Standardising the global vision

One of the biggest challenges facing smart grids is that they will not achieve their potential unless key components are able to interact effectively through common standards. The call for standardisation and interoperability is relevant throughout the supply chain, including for generation, distribution, interfaces, management of systems and networks, data models, security and methods of communication and data exchange.

Smart grids will therefore depend on the successes of initiatives to develop national and international standards for interoperability. Fortunately, a great deal of detailed standards work is now underway at both national and supra-national levels. The British government, for example, will develop Smart Metering Equipment Technical Specifications as part of one of the world's most ambitious roll-out of smart meters. The European Commission has also mandated for standardisation in smart grids and smart meters and in September 2011 the European Union's Smart Grid Coordination Group (which represents three standards organisations) announced

a co-operation with the US Commerce Department's National Institute of Standards and Technology, with the aim of furthering a consistent set of international standards.

Standard setting organisations (SSOs) will have an important role to play in that they commonly set rules in relation to the ownership of patents applicable to the standards that they adopt. SSOs will usually define when a patent becomes essential to a standard and require that owners of essential patents declare their existence and undertake that they will be made available to everyone on fair, reasonable and non-discriminatory terms (FRAND). These rules exist to prevent members of the SSO exploiting the monopolistic advantage of having their patents specified as a standard. Those using standards need to be aware that FRAND does not mean patents relevant to the standards can be used freely or without reference to the patent owner's terms. It is also worth remembering that SSOs do not give assurances that all patents relevant to the standard or a particular product are identified.

Practical implications

Businesses involved in this emerging market should keep abreast of such developments and participate in policy making processes that will determine the shape of tomorrow's energy markets, otherwise there is a risk that a business may adopt a technology that has been locked out of the standard. It is also vital that any standards are sufficiently future-proofed to allow for new functionalities as smarter grids mature.

Businesses using a standard will not only need to ensure required standards are complied with but also that standards (and other intellectual property rights) are only integrated into their smart grid solutions if appropriate permissions to use those rights have been obtained.

Innovators need to ensure their investments in new processes and technology are properly protected

through appropriate intellectual property rights. This is particularly important where technologies are being shared with competitors in a standard setting process.

Membership of an SSO may require an agreement between members and/or the SSO. Businesses should be prepared to deal with the consequences of such agreements and will also need to ensure that their behaviour is not anti-competitive. The European Commission highlighted the anti-competitive practices that can take place during the standard setting process in its Horizontal Guidelines (published January 2011). In particular those guidelines highlight that the responsibility to fulfil FRAND commitments lies with the members and not the SSOs.

“A member of our smart grids team chaired the IAPP panel on smart meters at the IAPP's 2011 European Privacy Congress”

Case studies

Some recent examples of cleantech and other energy projects our lawyers have worked on:

Department of Energy & Climate Change (DECC)

Our lawyers are advising the UK Department for Energy and Climate Change (DECC) as it embarks on a major national project involving the roll-out of some 53 million smart gas and electricity meters to households and businesses in Great Britain (the Smart Metering Implementation Programme or SMIP).

Ofgem

One of our lawyers acted for Ofgem, the UK energy regulator, on the second transitional tender round for offshore electricity transmission (OFTOs). This involved negotiating multiple assets sale agreements to transfer relevant offshore assets to the tendering companies, as well as advising on project, construction, regulatory and financing issues.

Energy Market Authority of Singapore

Our lawyers acted as the Singapore advisor to a consultant to the Energy Market Authority of Singapore on the implementation of contestability in Singapore electricity market; drafted the latest amendments to the Electricity Act as well as the amendments to the Gas Act to create a more competitive gas regulatory regime and to promote gas access; and advised on the first phase of modifications to the Transmission Code to accommodate distributed generators not exceeding 22kV to the distribution network.

TenneT Offshore GmbH

Our lawyers advised TenneT Offshore GmbH in 2010 on various projects for the installation of Electricity Transmission Systems to connect offshore wind farms in the North Sea to the nearest onshore substation and TenneT's electricity network.

Gassnova SF

Our lawyers advised Gassnova SF, the Norwegian state enterprise for carbon capture and storage (CCS), which commissioned the world's largest carbon capture facility attached to a gas power station in Kårstø. The Bird & Bird team identified over 12,000 patents that relate to CCS technology and analysed all intellectual property risks associated with the building of the CCS plant.

China New Energy

Our lawyers advised Cairn Financial Advisers on bringing China New Energy Limited to the Alternative Investment Market (AIM) in the UK. China New Energy provide a range of services spanning bioenergy technologies, including process technology, engineering designs and plant manufacturing - predominantly for the construction of ethanol production plants. This was the first IPO in the UK by a Chinese company in over a year.

How we can help

We take a hands-on approach, advising not just on the letter of the law, but also making practical suggestions for clients to consider. Members of our smart grids team have acted for a wide variety of clients around the world, including regulators, utilities, major retailers and small start-ups in connection with smart grid projects. Our legal advice is accurate, clear, pragmatic and business focused.

Smart grid projects require a wide variety of skills. We can deploy our multi-disciplinary team of technology, intellectual property, sourcing, privacy, regulatory and international standards litigation advisers to help those working on smarter grids deliver on their objectives and protect their reputations. Our support is full service, encompassing procurement, competition, employment, finance and corporate advice.

Did you know that Bird & Bird

- is top ranked for IP, IT, technology and regulated industry work - all critical elements in smart grids?
- advises energy companies, governments, investors and large end-users on EU and national laws and associated regulations as well as procurements?
- has advised both banks and energy companies on project financings in the UK, Germany, Italy, Spain, France and Central and Eastern Europe as well as Central Asia?
- has industry experts who regularly contribute to the wider debate?
- supports a number of clients in the cleantech sector on a pro-bono basis, including Earth Champions, Carbon Leapfrog and Belu Water?
- has over 200 partners in 23 offices throughout 17 countries across Europe and Asia?
- has over 80 lawyers across our offices that advise on energy and utilities matters?
- received over 650 new instructions on energy and utilities matters last year from angel investors to infrastructure funds, from entrepreneurs to large utilities?

Contact

If you would like to know more about this or if you have any questions please contact us at smartgridsblog@twobirds.com

To read more about Smart Grids please visit <http://twobirdssmartgrids.com>



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