

# IP rights on the line in Copenhagen

Intellectual property is proving to be a controversial issue in the climate change negotiations taking place in advance of a major UN conference to be held in Copenhagen in December, and compulsory licensing could be on the agenda. But is this a serious threat or just so much political posturing?

By **Sara-Jayne Adams**

The world is heating up. The polar ice caps are melting, sea levels are rising and droughts are becoming more frequent. Public concern about climate change ensures that the issue is rarely out of the news; the increasing pressure that governments are under to address global warming is putting it high on political agendas. Although some continue to dispute whether human activity is responsible for the long-term rise in global temperatures, there is little dispute as to the need to develop innovative ways to tackle climate change. And in the race to do this, green technology is becoming big business.

The Renewable Energy Policy Network for the 21st Century (REN21) estimates that new investment in the green-tech space reached as much as US\$120 billion in 2008. Yet despite this, fossil fuels such as oil and coal remain the cheapest, most commercially available source of energy. With this in mind, heads of state and governments will descend upon the Danish capital, Copenhagen, this December hoping (though not expecting) to agree on a new global sustainability agenda to combat climate change.

The Copenhagen meeting comes after more than a decade of negotiations about

creating binding measures to tackle the challenge posed by rising temperatures. In 1992 the United Nations Framework Convention on Climate Change (UNFCCC) was formed to bring countries together to develop ways of slowing down the damaging effects of global warming and coping with temperature increases. From the UNFCCC sprang the Kyoto Protocol. Ratified by 184 nations to date, it commits 37 industrialised countries and the European Union to reduce greenhouse gas (GHG) emissions by approximately 5% against 1990 levels between 2008 and 2012. Many countries are falling behind on their commitments and this, on top of the non-adherence of the US, – the world’s largest emitter of GHGs – has led many to pronounce the protocol a failure. With its first commitment period now having little time left to run, the pressure is on to find an alternative that all countries will adhere to.

## **IP and climate change – the debate so far**

The world’s rich, developed nations have been held responsible for climate change. Since the Industrial Revolution, cheap fossil fuels have been used as the foundations upon which thriving industries have been built. “There is the mindset in the developing world that developed countries are exclusively to blame for climate change so they should be paying for all the costs associated with challenging it,” states Benny Spiewak, senior attorney at Brazilian law firm KLA-Koury Lopes Advogados. However, as the BRIC countries (Brazil, Russia, India and China) – and in particular China, which has recently overtaken the US as the largest emitter of carbon dioxide – become increasingly industrialised, there is growing demand in the developed world for them to commit to a reduction in their emissions.

“The climate challenge is global and the solution must be global,” stated US Special Envoy for Climate Change Todd Stern in his address to the House Select Committee for Energy Independence and Global Warming in September. While Stern acknowledged that many of the biggest developing countries are making strides to address climate change, the task is to “convince these and other countries that they must both step up their activities and reflect them in an international agreement”.

However, speaking earlier this year, Ambassador Chandrashekhar Dasgupta, the senior Indian negotiator at climate change talks, dismissed the argument that developing nations should carry more of the burden to reduce emissions. “India is a country where half the rural population does not have a light bulb in its home or a gas ring. So to describe this country as a large emitter is absurd – there’s no other word for it,” he said. Governments of the most sophisticated developing countries argue that it is their right to grow their economies. Increased carbon emissions are an inevitable by-product of that.

Calls for the developing world to demonstrate greater commitment to combating climate change are being met with retaliatory demands. And this is where intellectual property comes into the debate. Many countries in the developing world have declared that patents are making cutting-edge green technologies inaccessible to them and that, without compulsory licensing, they will not be in a position to hit any proposed targets for curbing emissions.

According to a proposal entitled *A Technology Mechanism under the UNFCCC*, set forth by China and the G77 (an intergovernmental organisation of 77 developing states), current IP rules are insufficient to deliver “immediate and urgent technology development, deployment, diffusion and transfer” to those other than the most developed countries. The proposal categorically calls for the “removal of barriers for technology development and transfer”, and outlines a Technology Action Plan that, it is claimed, will support all stages of the technology cycle. The plan stipulates that privately owned technologies should be made available on “an affordable basis including through measures to resolve the barriers posed by intellectual property rights and addressing compulsory licensing of patented technologies”.

Reflecting the seriousness of the developing world on this issue, a new

paragraph highlighting compulsory licensing was added to the working text of the pre-Copenhagen negotiations in October, reportedly at the request of the G77 and China. It reads: “Consistent with their obligations under international treaties and agreements, Parties may compulsorily license specific technologies for the purpose of mitigation and adaptation to climate change, where it can be demonstrated that those patents and licenses act as a barrier to technology transfer and prevent the deployment or diffusion of that technology within a given country.”

### Alarm bells

Not surprisingly, calls for any weakening of IP rights in the green-tech space are ringing alarm bells in the developed world. Critics of compulsory licensing claim that it would result in a slowing down of investment in green innovation. Any suggestion that it may be provided for in a final treaty is a deal-breaker for several parties involved in the negotiations. Among these is the United States, which has stated that it will not agree to a deal that includes such provisions. US manufacturers will not invest in “alternative fuels and energy-saving devices and emission-reducing technologies if somebody is going to rip them off,” claimed Tom Donohue, president of the US Chamber of Commerce.

Ruud Peters, CEO of Philips IP & Standards, believes that enforced technology transfer is not the solution to the climate change problem. “Compulsory licensing will take away an incentive for companies to invest in green technologies,” he says. “Over 70% of all investment into green technologies comes from private investors and if you take away their incentive to invest you are not serving the ultimate goal.” Dr Susan Cullen, IP Consulting Services Director with the IP Solutions business of Thomson Reuters, agrees that intellectual property is essential in the green technology field. IP not only promotes innovation, she argues, but also helps companies to mitigate their investment risk. “We are looking for growth now in the scale-up area. Investment is needed to develop many more facilities. In order to feel comfortable about making investments of this kind, companies need to have some assurance that they will have freedom to operate in the field with their type of technology. Intellectual property is an important part of that.”

Those calling for a different IP framework for green technology are also



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overlooking the fact that it is not as simple to categorise as it first seems, says Peters. “Nobody has ever given ‘green’ a proper definition and it can be interpreted very broadly. The term can cover anything that consumes less power than the previous generation of products – so, ultimately, everything will eventually be green,” he explains. Peters is far from alone in his concerns about the scope of the term. Ian Harvey, chairman of the UK’s Intellectual Property Institute (IPI), stresses that something can be invented as green technology but have a range of commercial uses and vice versa. “If compulsory licensing became a significant part of the agreements at Copenhagen, the spill-over would be damaging for many other sectors, not just green-tech,” he says.

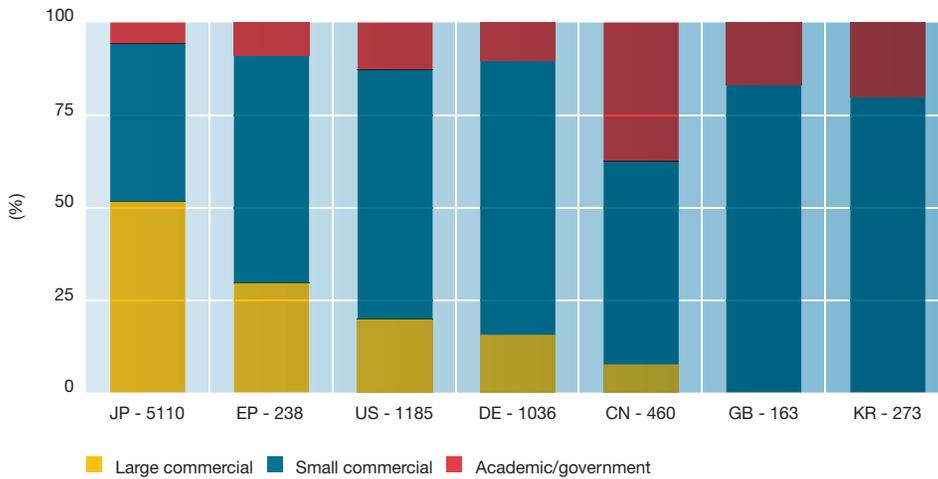
A lack of incentive for investment and a difficulty in determining what precisely green technology is are accompanied by perhaps a more fundamental flaw in the plan to disseminate advanced technologies compulsorily. Shammad Basheer – professor in IP law at India’s National University of Juridical Sciences, points out that compulsory licensing alone is not a solution. “There has to be a local industry that is technologically adept at working the patents that have been compulsorily licensed. Where this level of technological proficiency does not exist, developing countries must insist on a full-fledged technology transfer that involves some hand-holding by developed country patentees and goes beyond merely working the invention from the patent document,” he says. Compulsory licensing is hardly the way to garner such help, Basheer concludes. Dr Paula Carey, founder of Carbon8 Systems – a British SME that provides accelerated carbonation technology for the treatment of industrial waste and

contaminated soils – agrees: “We would be more than happy to help the developing world develop these technologies, but they simply wouldn’t get far implementing them without our help. You have to make sure that the technology you are passing on to the developing world is something they can use and maintain.”

But if straight compulsory licensing is not the answer, what is? Spiewak believes that stakeholders from industry need to think creatively about an alternative way to progress with discussions in the lead-up to Copenhagen. “I think we should be focusing more on financing and capacity building before technology transfer and intellectual property rights,” he says. GE’s Chief IP Counsel Carl Horton is working with colleagues to do just that. Together with eight other industry giants from the US and Europe, GE formed ACTI, the Alliance for Clean Technology Innovation. “ACTI sees innovation as the most critical component of a lasting solution to climate change,” explains Horton. “Bringing down the price point of effective technologies, scaling them up quickly, continuing to invest in manufacturing R&D such that clean technologies can be manufactured more cheaply and reliably all around the world – that is what’s key.”

The message coming from non-governmental organisations (NGOs) is surprisingly similar. Rather than taking the “patents kill” approach adopted by many NGOs during their fierce campaigning for the compulsory licensing of AIDs medicines in the developing world, they seem to have bigger fish to fry in the climate change negotiations. As well as a significant cut in emissions, finance, they say, is the key to tackling global warming. Rob Bailey, head of economic justice for climate change at Oxfam, believes that

Figure 1. Share of alternative energy patenting



Source: Thomson Reuters Alternative Energy Report

assisting the developing world to progress without increasing GHG concentration to dangerous levels is essential. “An increasing proportion of GHGs are coming from developing countries as they industrialise,” states Bailey. “We think that upwards of US\$100 billion of public finance a year needs to be made available to the developing world from 2013 in order to help them develop along a low carbon path.”

Oxfam is also calling for a minimum of US\$50 billion a year to help the poorest countries adapt to the effects of climate change. Friends of the Earth agrees. It states that a strong and fair agreement arising from the Copenhagen meeting should include rich countries acknowledging their “legal and moral responsibility to provide new money for developing countries...so that they can grow cleanly and adapt to the effects of climate change which are already putting millions of lives at risk”. Bailey recognises that it may sound as though NGOs are asking for a lot of public investment but, he reasons, it is easily justified when considering what the cost of inaction would be: “It is a much better economic proposition to invest in mitigation and adaptation early, and minimise the costs that will occur later on, rather than try to cover the costs as they arrive. There’s a strong economic argument and a strong humanitarian argument.”

**Is green the new pharma?**

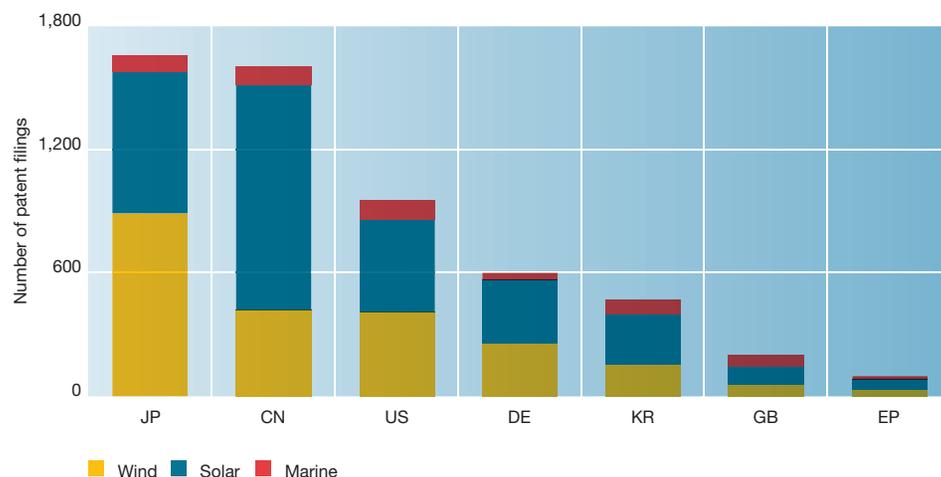
The humanitarian aspect of climate change has led it to be compared with the access to medicines debate. But while both are emotive discussions that are of great public

interest, that’s where the similarities end, according to Intellectual Property Institute Director Paul Leonard. “Drugs cost a lot of money to develop and get through regulatory channels but once you’ve done all that they’re very cheap to produce. That’s just not the case with green technology,” he explains. Moreover, whereas a lack of access to medicines is localised and does not have a direct impact on those in the West, there is no localising the Earth’s temperature. What one country does in terms of cutting emissions affects the rest of the world. Although drought and flooding may currently be the problem primarily of the least developed countries, things will not remain this way for long, as evidence emerges of receding snow lines in the Alps and the Rockies, and desertification in places such as California and southern Spain.

But, says Leonard, what the access to medicine debate does have in common with the discussion surrounding climate change is that both are based on “plenty of anecdote and assertion, some of which assumes that IP acts as a barrier to achieving our common goals, and that it works to the detriment of developing economies in particular.”

One such claim is that green-tech is another example of big industry flexing its muscle to push small innovators out of what is potentially a very lucrative market. The reality, though, is somewhat different. Reflecting on her recent research for Thomson Reuters into the patent landscape for alternative energy, Cullen explains that one of the most surprising findings was the

Figure 2. Recent alternative energy invention activity



Source: Thomson Reuters Alternative Energy Report

diversity of the entities engaged in green patenting. “Not only are the expected large companies patenting in this area, but there are also a large number of small companies. In fact, a quite overwhelming number of small companies,” she says (See Figure 1).

On top of these findings, there is research to suggest that it is not just the developed world that is innovating – and subsequently patenting – in the clean technology space. According to Cullen’s report, in the period between 2006 and mid-2009 the largest number of solar energy patents was filed in China; and the country is now on a par with the US in the number of patents filed for wind and marine technology (see Figure 2). Furthermore, China’s wind power capacity has doubled in each of the past four years and the China Greentech Report 2009, published by a group of over 80 companies, estimates that the domestic market for clean technology is poised to grow to US\$1 trillion annually. REN21 stated in its 2009 Renewables Global Status Report that China and Brazil are among the five countries that saw the most new capacity investment in 2008. If this is the case, it is clearly not just the innovators in rich, developed nations that would lose out if compulsory licensing for green-tech became a reality.

#### Opportunism?

With so many compelling arguments for the protection of strong IP rights for green technology, what possible reason could certain governments in the developing world have for calling for the weakening of these rights? For many in industry, the IP

element of the debate is being overblown and is being used in an attempt by some countries to divert attention from their own responsibilities to combat climate change.

That certain factions from the BRIC countries claim it should be up to them where and when they transfer their own technology, and what the terms and conditions for that transfer should be, while calling for compulsory licensing from the developed world is felt by many to be a double standard. Spiewak agrees. “I haven’t wanted to believe this, but I am starting to realise that perhaps certain developing countries don’t want a commitment – just access to free goods and technology,” he says. The vast difference in terms of both capabilities and technologies held in countries such as China and Brazil means that the developing world evidently cannot be considered as one entity when it comes to tech transfer. “Brazil is a very powerful economy and is starting to set an example to the rest of the developing world,” states Spiewak. “With that position we will inevitably have to step up and take on some more responsibility.”

Oxfam’s Bailey disagrees, however, that it is the developing world that is being opportunistic in this debate. Instead, he believes it is the victim of some potential opportunism. “If you look at adaptation financing, for example, rich countries like to talk about the need only to finance adaptation in the poorest countries – which at first seems reasonable,” he states. “But then you realise that they are trying to reduce their responsibility as, if they can limit financing adaptation to just the

poorest countries, it's going to reduce their bill considerably." Bailey goes on to stress that with over 400 million people living in poverty, China is still well within its rights to claim to be a developing country, and that climate change negotiations are no time for debating who falls under this term.

### Hopes and expectations

With opinions so divided and the meeting so soon, what can the IP community hope to see achieved at Copenhagen? "An ideal outcome would be that the participating countries agreed on an agenda for cutting emissions in the interest of everyone on this globe," states Peters, "while at the same time recognising that a properly functioning IP system is needed to stimulate the investments in green/clean technology and that this new technology, area can also be fitted into existing patent systems without the need to design special IP rules for it."

However, few are optimistic that such an outcome is possible. "I'll admit to being a bit of a pessimist about the prospects of achieving a comprehensive agreement in Copenhagen," says Horton. "I think we are more likely to have an agreement at the highest level on the most significant commitments, coupled with an agreement to agree upon many of the implementing procedures and mechanisms; but I think that a lot of the significant details will still have to be worked out down the road." While the IPI's Harvey concurs that agreement at Copenhagen is unlikely, he has bigger concerns: "What worries me intensely is that most people at the meeting won't understand IP. Unless there are good proposals on the table, it would be quite easy for people to jump to a conclusion which seemed sensible at the time to those who don't understand IP, but turns out to be very damaging."

### Beyond Copenhagen

Even if Copenhagen turns out to be a damp squib, at some stage an effective, affordable solution to mitigate the effects of climate change must be found. We clearly do not have all the answers yet and decision makers need to consider how best to incentivise the creation of effective green technology. Should they offer industry the promise of a return on its investment or threaten it with compulsory licensing?

"ACTI believes that strong innovation in the area of green technology is absolutely essential and IP has been proven over several hundred years as the best way to incentivise that innovation, especially when you consider that most of the green

technology innovation is coming from the private sector," states Horton. "Companies need some ROI and IP helps ensure this for successful technologies, thus enabling companies to invest in some of the more speculative solutions."

Education and a more open dialogue about the role that intellectual property plays in the innovation process are, according to those *IAM* spoke with, critical if climate change negotiations are to be a success. "IP enables you to package technology and to trade it," explains Peters. "It allows you to share and exchange ideas with others. It is vital for establishing collaborations for the development and dissemination of green technologies. We need to continue the dialogue with developing countries about these IP issues and how IP can facilitate rather than block access for developing countries to green technologies." There is widespread agreement that without an informed debate, it would be better that no were decision reached at Copenhagen than that the wrong decision were made. "I suspect that if we at the Institute do not yet have the answers – indeed, we do not yet know what we don't know! – then the policy makers are extremely unlikely to be better informed," says Leonard. "Don't fiddle with the IP system until you know what you are doing," he warns.

However, if the cynics are right and it is the case that IP is being used as a political bargaining tool, education could turn out to be a waste of time. Instead, maybe the best that can be hoped for is that posturing does not prevent real action from being taken to address rising temperatures before it is simply too late. Considering the position of his own country in the climate change debate, Spiewak says that he believes that Brazil's calls for a weakening of IP rights in the green-tech area stem from its desire to be the voice of the non-developed world. But, he reasons, in this debate there is no room for political agendas. "When it comes to such an important matter as climate change we should put this aside on behalf of the greater good," he says. This December, the world will be watching proceedings in Copenhagen to see whether global leaders reach the same conclusion. *iam*