



Clean Energy: An International Property Right?

Clean energy technology, while highly sought after, is also fiercely guarded. Andrew Williams takes a look at intellectual property rights covering the transfer of clean energy technology across developed and developing countries.

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In general, the existence of intellectual property rights (IPRs) provides a powerful incentive for the transfer and utilisation of clean energy technology between companies and across different countries.

The main purpose of IPRs is to provide an exclusive right of ownership to those companies or organisations that have invested resources and time in the development of novel clean technologies - it is on this basis that technology owners are able and willing to grant others the right to use these technologies.

Licensing agreements, for example, are a very common and effective tool allowing technology owners to license their proprietary technology to potential users, with the understanding that their IP rights will be respected and maintained.

The risk of transference

Director of research at the influential Stockholm Network and co-author of a recent UNEP-EPO-ICTSD study on patents and clean energy, Meir Pugatch believes that owners of clean energy may find it more challenging and risky transferring their technologies to entities that are based in countries with a relatively weak level of intellectual property protection

"That being said, it is important to note that IPRs are not a silver bullet and their effect is not identical in all circumstances. In fact, there may be cases in which the absence of IPRs, or a weaker level of IPRs, may not hamper the ability to transfer clean technologies from one country to another," he adds.

To take a current example, although it is gradually improving its intellectual property environment, China is still experiencing some considerable problems in the area of IPRs - yet the country is one of the biggest recipients of technology transfer of clean energy technologies.

According to Catherine Saez, senior writer at *Intellectual Property Watch*, intellectual property rights have been held up as both the answer to developing technology to save the planet and the biggest problem for sharing of those technologies.

"Developing countries see intellectual property rights as one of the main barriers to the spread of clean energy technology, particularly as the monopoly provided by patents will elevate prices to recover the cost of R&D. So they want an exception made for developing countries to access these critical environmental technologies," she explains.

"Developed countries, meanwhile, say there will be no innovation without the IP rights incentive," she adds.

This issue has recently been discussed in the framework of the UNFCCC conference of parties, in particular in the context of technology transfer. The latest text produced at the end of the December 2010 meeting, called the 'Cancun Agreements,' did not include language on IP rights, as did a previous negotiating text on climate change.

"The issue was likely pulled from the text due to its controversial nature, but is not likely to go away, at least for developing countries," says Saez.

Effect on specific technologies

For some observers, it is not yet possible to say whether any particular clean energy technologies are more affected, either positively or negatively, by the existing IPR system.

"When seeking to answer this question one has to look deeper and examine each case on its merit. In particular, the specific nature and characteristics of a certain technology, as well the characteristics of the entity which has developed it, play an important part in our ability to understand how it may be affected by IPRs," says Pugatch.

Instead, Pugatch argues that a better approach may be to ask whether individual technologies lend themselves to patent protection in the first place - i.e. are they 'patentable' or not? Other important factors to consider include the 'maturity' of the technology - i.e. is it at the early stage of development or closer to the final stage?

"[Also], how costly and risky is it to develop the technology and how difficult would it be to copy it? What are the main uses of such a technology i.e. is it very specific or more 'generic?' says Pugatch.

All these aspects will determine the extent to which IPRs influence an organisations willingness and ability to transfer different technologies. However, there are some signs that companies and governments have begun to wake up to the crucial importance of clean energy technology transfer.

"Innovative clean energy technologies are being rapidly protected by IP rights, with some IP offices fast-tracking them through the system," says Saez.

Future challenges

So, how best can governments, companies and other organisations help to facilitate the wider transfer of clean energy technologies? For Pugatch, the main thing is for countries to realise that IPRs cannot be considered in isolation and that a variety of 'complementary' factors such technical capacity, infrastructure, macroeconomic indicators, regulatory and political climate and 'human capital' are very important to our ability to enhance the transfer of clean technologies between countries.

"As a result, the IP dimension should be part of a broader strategic agenda aimed at promoting technology transfer of clean technologies," he argues.

Subsequently, countries will also need to shift the discussion away from quasi-philosophical questions, such as 'do IPRs help or hurt technology transfer of clean technology?' and focus more on practical questions [such as] 'how can IPRs be used effectively to promote successful assimilation and use of clean technologies by entities based in developing countries?' he adds.

In summary, it is likely that such questions will pave the way for a much broader discussion with more practical and productive results in terms of our ability to encourage technology transfer. Although there is currently no easy way of understanding the positive or negative effects of IPRs on clean energy technology transfer, it seems likely that a globally negotiated solution may be needed to ensure that those developing countries most in need of these technologies find a way to obtain special treatment on IPR.