

CHAPTER IV

CONCLUSION

In conclusion, international cooperation initiatives will only increase in the future. Not only are developed countries and their organizations motivated by energy security and the financial incentive of rising commodity prices to help China transition to renewable energy, they are also motivated by environmental concerns as China is increasingly one of the biggest polluters, sending the byproducts of its energy consumption into the atmosphere resulting in pollutant clouds that traverse the Pacific all the way to the US and also contribute CO₂ to the global warming/climate change situation. For instance, energy security and rising oil prices are two of the main motivations in the creation of the EPD, the APPCDC, as stated in their mission statements, and is mentioned by REN21 and the Energy Foundation as a global concern. The environmental aspect crops up in the objectives of numerous projects initiated by these organizations.

Another important motivation for developed countries in helping China develop their renewable resources is global stability. As China engages in more oil deals in volatile areas, it increases the risk of involvement for China from a security point of view. Therefore, a bigger renewable sector would provide less reason for the Chinese government to make more deals. China itself is gradually becoming more active in the area of renewable energy as it tries to change its image into that of a responsible superpower through the use of renewable energy. China's commitment in securing international cooperation will aid the quantity and effectiveness of international cooperation initiatives.

Though the renewable energy sector looks set to grow in China, there are still many problems. From an organizational perspective, the sheer number of projects conducted by different agencies without a practical database system and means of coordination could pose problems. This is likely to result in overlapping projects,

inefficient funding as more than one agency executes similar projects, and ineffective use of time and human resource.

Another problem is the lack of tangible results. Current renewable energy policies need more time to be evaluated and thoroughly assessed, though preliminary assessments yield positive results. Cooperative research and development initiatives are mostly still in their developmental stages and will not be commercially viable for many years. Completed projects or ones near completion are mostly small and/or localized projects, which have not been replicated on a national level, thus constricting the overall effectiveness. Moreover, projects that have significant impact on increasing renewable energy are generally still in the developmental stages. Nevertheless, these projects have great potential and the developments thus far have shown positive signs.

Overall, the current work on renewable energy in China is not enough to dissipate energy security concerns as only 7.5% of total energy consumed in China in 2005 was from renewable sources. Though China aims to increase this figure to 15% of total energy consumption by 2020 (Biopact, *China unveils*), this percentage of renewables, even if achieved, would still be far from the levels required for energy security. To put this 15% into perspective, consider that the International Energy Outlook 2007 projects China's total consumption in 2020 would increase to 119.5 quadrillion British Thermal Unit(Btu), with 15% being approximately 18 quadrillion Btu. The EU's target of 20% by 2020 is slightly higher yet since the projected total consumption, from the same projection, is 89.9 quadrillion Btu, the EU's target is actually smaller than China as 20% is approximately 13.5 quadrillion Btu (EurActive, 2007). The EU is considered a leader in renewable energy and China's target, though lower in percentage, is higher in total while the US does not even have a national target for renewable energy. China demonstrates through its target that it is serious about developing its renewable energy sources. However, developing renewable energy is merely one of China's methods at increasing renewable energy and this is reflected in the projects' budgets. Though China has invested in developing renewable energy through cooperative efforts, it has spent more financial and human

resources on securing fossil fuels. As long as China, and the world, continues to give priority to fossil fuels, the development of renewable energy will continue at a slow pace.

Though the increase in renewable energy through the various cooperative efforts will ease dependence on foreign energy imports, any disruption in the global energy supply, particularly of oil, will still greatly impact China due to its energy dependence. China has tried, but the current level of international cooperation over renewable energy is not enough. In the long run, the world and China stand to gain from further expansion in the renewable energy sector, and although current results may show signs of sluggishness, the increasing severity of the situation will likely intensify the pace of change.