

A landmark climate accord that leaves 'green tech' and rare earths as the biggest gainers

☒ Yesterday – after cutting tariffs on technology products – Chinese President Xi Jinping and US President Barack Obama have signed a landmark agreement to reduce greenhouse gas emissions. The agreement obliges the USA to achieve new carbon emission targets while China will commit to reduce the rate at which these are increasing by 2030. Evidently, the two countries, the world's largest economies, accounting for some 40% of the global greenhouse gas emissions have been quietly negotiating to reach a common approach, which could serve as the impetus to reach a new global climate agreement by 2015. It was China's objections at the 2009 Copenhagen Summit that blocked such a treaty.

The crux of the agreement between the USA and China lies in the fact that the former will cut 26-28 percent of the greenhouse gas emissions by 2025, while China will reach its peak emissions by 2030, reducing them thereafter. Whilst this may appear, at first glance, as a climate agreement, it is first and foremost is a business deal: the green economy promises to be the largest source for global growth in the coming years. Indeed, to achieve China's targets, Xi announced that 'clean energy' sources, such as solar and wind power, would supply 20 percent of China's total energy needs. In turn, the United States will double the pace of global pollution reduction from 1.2% per annum between 2005 and 2020, to 2.3 and 2.8% in the subsequent period from 2020 to 2025. Meanwhile, China's goal is extremely ambitious, as it will start from zero percent to 20 percent of energy consumption based on non-fossil fuel sources. Nuclear power will be one of

the principal tools, along with wind and solar installations, in order to develop anywhere from 800 to 1,000 gigawatts.

Together the US and China are responsible for about one third of global emissions of greenhouse gases, and hence their agreement has an effect that is at once practical, in its provisions to cut emissions, even as it encourages all relevant parties to re-engage in the so-called Kyoto Protocol. The later will be one of the main points of the UN climate summit scheduled to take place in Paris in 2015. The agreement also carries political weight as President Obama, can use it to secure some tangible results after his Democratic Party's defeat in the midterm elections. The first step in a series of initiatives for which he can use his executive powers to exploit and save his legacy. But there are other important facts of the agreement signed in Beijing.

China faces many years growing concerns from the population over excessive pollution and its effects on health. A recent study found that only in 2012 the number of deaths connected to coal-fired plants was 670,000 or 670 thousand. The Chinese government has been working for long time to invest in clean energy (including nuclear power). Of course they are also planning new coal plants – to meet the huge and ever-growing energy demand of a country with a booming economy. In wider terms the agreement means that demand for the raw materials needed to build and fuel the new green technology, rare earths and uranium for starters, will increase significantly.

China is the world's largest consumer of coal-by far, using 50% of the world's total production and driving more than 70% of its energy. Coal consumption had increased annually by an average of nine percent for the past decade. Nevertheless, there is increasing pressure for change at all levels of society. Coal has fueled China's tremendous economic growth, but if this growth is to continue, energy production must change. The Chinese government has already started to increase its nuclear energy generation capacity, expected to quadruple

by 2030; sales of electric vehicles in China have also increased. This change and the historic US-Chinese climate agreement should affect the global production and distribution of rare earths. While domestic production fell in 2012, demand for rare earths will increase to the point where China will soon start to import these minerals.

The government cannot hold back any longer on addressing environmental degradation of which air pollution is one of its most notable effects. China will have to devote more resources to innovation to address the problem because it has become a major issue of social and political concern. Chinese citizens are no longer content to be 'mute'; they have taken quite well to protesting to express discontent and demand for changes. Many of the recent protests have addressed environmental degradation and the lack of standards. Chinese authorities have certainly become concerned by the events known as 'the Arab Spring' and they seem well aware that if political and democratic rights are denied, they will have to take action.

Demand for environmental protection – a phenomenon contributing in no small part to the closure of some Chinese REE production facilities in 2012 and 2013 – and higher wages can only point to the inevitability of China losing its low-cost wage advantage and the price of its export goods will increase in accordance – no doubt leading to the emergence of new cheap labor workshop countries and, more likely, a gradual increase of the prices of many consumer goods. Xi Jinping, China's president clearly outlined that one of his government's priorities will be to tackle environmental degradation. The recent crackdowns to curb illegal rare earth mining has reflected this trend, sending a signal to the West that it is becoming risky for China to absorb the environmental and socio-economic risks associated with low cost industrial practices. China itself has to change and become less price competitive with the unavoidable rise of labor and regulatory costs, resulting from stricter emissions,

tougher industry entry obligations or even energy consumption.

All of this suggests that China and the USA should see a surge in internal demand for green technology solutions, leading to greater demand for rare earths, despite the lower output numbers reported by such Chinese rare earth producers as the Baotou Group (IMBREHT). The lower production of rare earths in the past year, caused by consumer reluctance and global economic uncertainty – in China as elsewhere – has already started to reverse toward a more bullish direction. About 90 percent of all currently mined rare earths come from China. With its pricing policy, the country has displaced almost all competitors from the market. The USA, Canada and Australia have been challenging this market dominance, and new mines and processing facilities are being developed. There is no risk of market saturation because when the new mines come on line, China's experience with coal suggests that it will become a major importer of rare earths.

China used to be a major exporter – as well as user – of coal. However, with the tremendous pace of its industrialization, domestic consumption limited the amount of coal available for export, as the mineral was needed to fuel steel plants and power generation. It has not taken long for China to become one of the largest importers of coal in the world. Rare earths are staring at a similar fate – and one that is approaching at rapid pace. Domestic concerns – environmental ones in particular – will boost internal demand, limiting the amounts available for export. Ten years ago, China has consumed about 25% of domestically produced rare earths; even in the slower growth scenario of 201, China's domestic rare earth consumption has risen to 65%. Today, 80 percent of the magnets, and 70 percent of the world's manufactured phosphors originate from China. Domestic supplies of rare earths will not be sufficient to sustain such a rhythm of production and Chinese government agencies will have to seek other products to maintain this dominance, forcing it to seek supplies

elsewhere. China's pollution is encouraging news for the newly emerging rare earth plays.