

## **Testimony of Preston Chiaro on behalf of Rio Tinto**

### **Before the House Select Committee on Energy Independence and Global Warming**

#### **The Role of Coal in a New Energy Age 14 April 2010**

I greatly appreciate the opportunity to testify today on the role of coal in a new energy age. My name is Preston Chiaro, and I am Group Executive for Technology and Innovation for Rio Tinto, the largest diversified mining company in the US, and one of the largest diversified mining companies in the world. Our US assets include coal holdings in Colorado, copper in Utah, nickel and copper projects in Michigan and Arizona, borates in California and talc in Montana and Vermont, as well as an aluminum smelter in Kentucky, with nearly 5,000 US employees all told. We also hold a 48 percent interest in Cloud Peak Energy, which until being spun off last November was known as Rio Tinto Energy America and is the third-largest coal company in the US. We are one of the largest coal producers and exporters in Australia.

Rio Tinto has had a climate change position since 1998. We recognize that man-made emissions of greenhouse gases are contributing to global climate change and that action is necessary to reduce those emissions and adapt to a changing climate. Our climate policy objectives have three dimensions. First, we actively engage with governments and encourage government action to manage greenhouse gas emissions. Second, we take an active, pragmatic, and transparent approach towards achieving energy and greenhouse gas reductions from our own operations. Third, we identify emission reduction opportunities for our products in use.

Rio Tinto's global greenhouse gas emissions totaled 41 million tons in 2009, but emissions from the use of our products were more than an order of magnitude greater, so this issue is vitally important for our customers as well. For example, last year 120 million tons of CO<sub>2</sub> were emitted from our coal as it was used in the generation of electricity and the fabrication of steel, and another 330 million tons of CO<sub>2</sub> emissions were associated with customers using our iron ore to produce steel.

Society needs abundant, affordable, environmentally acceptable energy to underpin poverty alleviation and create high standards of living. All primary energy sources - fossil fuels, nuclear, and renewables - must be tapped to meet this need. Yet economic and environmental challenges exist for all these energy types. Coal is cheap but high-carbon, natural gas is more expensive than coal, and also high in carbon emissions, so it, too, will need some means of addressing its CO<sub>2</sub> emissions if the world is to meet substantial mid-century emissions reduction goals. Rio Tinto is a global leader in the production of uranium, but we recognize that nuclear power has high up-front costs and control of the fuel cycle is likewise expensive. Renewable energy is high-cost, intermittent, and land

intensive. There is no perfect fuel for all situations, but we need to advance them all to address both global development opportunities and the climate imperative.

As a coal producer, large energy consumer, and technology developer, Rio Tinto continues to devote resources and funds to the development of low-emission coal technology, in particular carbon capture and storage (CCS) technology. CCS technology affords coal – and, eventually, natural gas - a tremendous opportunity to position itself as a low-carbon energy source both in the US and globally.

Although the individual components of carbon capture and storage technology have been used extensively and safely for decades in different applications, they have not yet been integrated at a commercial scale in conjunction with electricity generation. In 2007, after several years of investing resources and funds to support the development of CCS technology, we launched the Hydrogen Energy joint venture with BP Alternative Energy. Through the Hydrogen Energy California (HECA) Project in Kern County, California we are developing the first utility-scale, fossil-fueled electricity plant to capture and store up to 90 percent of its emissions upon deployment. Once fully operational in 2015, the plant will provide low-carbon electricity to over 150,000 southern California homes and contribute to meeting California's power demand while permanently storing 2 million tonnes of CO<sub>2</sub> per year in a nearby oilfield. Additionally, the project will create 1,500 construction jobs and 100 permanent operational positions. In recognition of HECA's promise for climate mitigation, the Department of Energy awarded the program a \$308 million grant last year through Clean Coal Power Initiative funding.

Rio Tinto believes that it is critical for the world to transition away from high-emitting conventional fossil fuel electricity generation by the middle of this century. For both coal and natural gas, then, it will be important that the US make strong strides towards commercial deployment of CCS as early as possible.

To support this effort, Rio Tinto has worked to develop recommendations for the Administration and Congress on how to accelerate the development and deployment of CCS and the emissions reduction benefits it can deliver. We continue to support and advocate the recommendations included in Blueprint for Legislative Action developed last year by the US Climate Action Partnership. We have gone on record in support of the inclusion of these recommendations in HR2454, to address the existing technical, financial, legal and regulatory bottlenecks to the commercialization of CCS.

Economic modeling of USCAP's recommendations indicates that long-run transition costs are small when climate policies are market-based and economy-wide, when forest- and land-based offsets are available to contain costs, and when we allocate funding to the development of technologies such as carbon capture and storage that keep coal in the energy mix going forward. In fact, when economic models used by USCAP, the Energy Information Administration, and EPA, are compared to those commissioned by the American Council for Capital Formation and the National Association of Manufacturers, the findings challenge conventional wisdom because all models are basically telling us the same story. Specifically, all demonstrate that the things we should care about the

most, including our economic output, our levels of consumption, and our levels of employment are virtually identical to business-as-usual even years after a climate policy such as HR 2454 is put in place. For example, compared to business-as-usual, we reach the same level of economic growth, consumption, and employment about eight or nine months later under the worst-case modeled scenario, with most results showing a cumulative growth impact in 2030 of only a couple of months. If climate policy is market-based, an economic effect of this magnitude will be lost in the noise of normal business cycles and events, and clearly in everybody's best interests.

Of course, markets will work only with strong oversight, which we support, and assurances that all of the rules will be enforced. And, the US cannot carry out our policies in a vacuum because the climate problem we face is global. Our markets are also global, and we commend the work of Congressmen Inslee and Doyle in the House and Senator Sherrod Brown in the Senate for undertaking to develop provisions that provide transitional support to our energy-intensive, trade-exposed industries. These industries, including metal and industrial minerals markets, are at competitive risk during the period while the rest of the world puts its own policies in place. While US climate action can only contribute a share of the solution to the climate problem, our leadership is essential if other countries are to follow.

In conclusion, the choices facing coal at this time may appear unappealing to many in the industry, but we do not have the choice of going backward in time. We cannot go backward to a time when human contributions to climate change were less certain. We cannot go back to a time before state and federal legislators, regulators, investors, civil litigants, and – most importantly – the overwhelming majority of climate scientists believed it was necessary to reduce greenhouse gases from coal. A failure to adopt comprehensive federal legislation will increase both risk and uncertainty for our industry. These risks and uncertainties will increase with the passage of time and, if not addressed, will stifle investment in necessary advanced energy technology.

Well-constructed policy provides the best means to address the multiple challenges facing our industry. We will either participate in the shaping of policy or we will have the policy thrust upon us. Our own experience as a company has been that constructive participation in the policy process can yield positive outcomes on the issues which are most important to us.

## Short Curriculum Vitae – Preston Chiaro

BSc (Hons) (Environmental Engineering),

MEng (Environmental Engineering)

Age 56

### **Skills and experience:**

Preston Chiaro was appointed Group executive, Technology & Innovation in October 2009. He joined the Group in 1991 at Kennecott Utah Copper's Bingham Canyon mine as vice president, Technical Services. In 1995 he became vice president and general manager of the Boron operations in California and was chief executive of Rio Tinto Borax from 1999 to 2003. Preston then became chief executive of the Energy group and in November 2007, upon a management re-organisation, he also assumed responsibility for the Industrial Minerals group.

### **External appointments (current and recent):**

Director of Cloud Peak Energy, 2008-2010. Director of Rössing Uranium Limited from 2004 to 2009, director of the World Coal Institute between 2003 and 2009 (chairman from 2006 to 2008), chairman of the Coal Industry Advisory Board to the International Energy Agency between 2004 and 2006, director of Energy Resources of Australia Limited between 2003 and 2006, director of Coal & Allied Industries Limited between 2003 and 2006.