WestVirginiaUniversity.

WEST VIRGINIA – CHINA ENERGY CLEAN ENERGY PRODUCTION INVESTMENT FAQs

Q. What does this mean for WVU moving forward?

A. WVU looks forward to continuing our partnership with China Energy (formerly Shenhua). This ongoing collaboration will allow WVU students and faculty to further collaborate with leading scientists in China on the next-generation low-carbon energy technologies that will be essential to simultaneously lowering our environmental footprint while utilizing the carbon fuel resources abundant in West Virginia and China.

This collaboration doesn't just start and end in the energy field. We will promote interdisciplinary collaboration on technology innovation, education and training exchanges, and joint energy business development across WVU's Statler College of Engineering and Mineral Resources, College of Business and Economics, Davis College of Agriculture, Natural Resources and Design, Eberly College of Arts and Sciences, and College of Law.

Q. Will WVU continue its collaborative efforts with the China Energy Company?

A. Yes. We've had a great partnership with China Energy's successor company, Shenhua, for some 15 years, and WVU looks forward to continuing our partnership with China Energy.

Q. What is the Appalachia Storage and Trading Hub?

A. The Appalachia Storage and Trading Hub is a $10+ billion infrastructure project that will expand the market for ethane and other natural gas liquids (NGLs) production from the liquids-rich Marcellus and Utica Shale Formations, which cover the majority of West Virginia's total land area. It consists of a network of pipeline infrastructure that provides connectivity between NGL storage capacity and manufacturing facilities across the state and region.

The Appalachian Storage Hub will lead to an economic revitalization of the Appalachian Basin, bringing in multibillion-dollar investments and creating thousands of jobs. It will include opportunities for welcoming new business development into the region from international and stateside companies, while enhancing natural gas exploration and production companies, midstream gas companies and suppliers, and downstream chemical producers and other manufacturers.

Q. How does this fit in to West Virginia Forward?

A. This transformational investment is a game-changer for the state of West Virginia and will have sweeping impacts to help move West Virginia forward for years to come. Indeed, it shows that West Virginia Forward's movement is gaining momentum, as this investment wholly reflects the five guiding principles anchored to West Virginia Forward's mission: building on existing assets; growing and diversifying beyond the sectors already established; finding disruptive trends; considering our regional impact; and finding the quick wins.

Instead of sending jobs offshore, we are bringing hundreds of thousands of jobs stateside and directly into the state. Thanks to this strategic partnership, West Virginia is on the global stage. Now is the time to seize these business development opportunities that will help expand West Virginia's energy market and provide cleaner, cheaper energy across the United States and beyond. It's our time to be a leading energy producer, and this investment will help us catapult ahead to take the lead.

Q. Why aren't we focused on investment opportunities with U.S. companies rather than doing business with China?

A. The time is now to seize every economic development opportunity, every chance to advance and diversify West Virginia's energy sector and expand West Virginia's workforce and job market. WVU's ongoing relationship with China and China Energy, coupled with the Trump Administration's and the West Virginia Department of Commerce's goals to bring jobs stateside and create energy jobs in our backyard, made this opportunity ripe for the taking.

Our goal at WVU and at the Energy Institute is to incentivize both global companies and U.S. companies to invest in our state to create an energy renaissance right here in West Virginia and the Appalachian region.

Q. How did this investment opportunity come about?

A. WVU and China Energy, through its successor, Shenhua, have a long, 15-year history. The collaboration began in July 2002 with joint research on direct coal liquefaction technology, and the first agreement was signed in December 2003 to promote joint research on the economic and environmental impacts of coal liquefaction in China and to encourage technical collaboration on coal and energy projects.

The WVU-Shenhua work on coal liquefaction continued in the field of fossil energy technology development and utilization between the U.S. Department of Energy and the Ministry of Science and Technology of the People's Republic of China.

Then October 27, 2016 WVU and Shenhua signed a partnership agreement in the areas of: comprehensive strategic cooperation to establish West Virginia as the priority area for Shenhua Group's investment into U.S. markets; natural gas power plant development; shale gas development, including investment in upstream and downstream businesses, technologies in clean coal and power, and training.

Q. Since this signed agreement is technically a non-binding Memorandum of Understanding (MoU), what does this mean in terms of next steps?

A. The West Virginia State Government and the WVU Energy Institute will collaborate with China Energy on the organization, planning, construction and investment opportunities of shale gas development and utilization in the three states of Ohio, Pennsylvania and West Virginia consistent with the Tri-State Regional Cooperation Agreement.

Q. Does the MOU list specific projects that China Energy will invest in? What are the projects?

A. The document was signed at the State level, so please contact the West Virginia Development Office for all questions related to the MOU.

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Q. How will the money be allocated, and who decides which projects will get priority?

A. The money will be allocated across a number of commercial projects that China Energy will be evaluating and pursuing.

Q. How many jobs will this investment create?

A. We are still working on the estimates, but the American Chemistry Council released a report earlier this year that estimated that 101,000 jobs could be created if we realize the full potential of the value chain.

Q. What is the timeframe for China Energy representatives to come to West Virginia and begin work on these projects?

A. China Energy and West Virginia officials have been meeting in China and in West Virginia regularly over the last few months. This regular engagement will continue, and the projects will all be moving forward in various stages immediately.

Q. Since China Energy is a Chinese, state-owned company, how can we ensure American intellectual property will be secure?

A. The projects that are being considered are all incorporating technologies that have already been commercialized in China by China Energy and also around the world, making this endeavor different than an international company purchasing a U.S. company, along with their IP.

Q. Should we trust the Chinese and their technologies?

A. China Energy is a leading energy and technology company and has innovated new technologies across a number of sectors. Their research center, the National Institute for Clean Low-Carbon Energy (NICE) is a leading research center in the world with campuses in Beijing and Palo Alto, CA, near Stanford.

Q. China Energy is the largest coal-mining enterprise in the world, so does this collaboration only focus on coal technology? Will this investment include carbon sequestration?

A. This agreement focuses on all types of clean energy production. China Energy has developed a vision as a global comprehensive energy company, including clean low-carbon coal utilization, nuclear power, wind, solar and coal-to-chemicals. This particular portfolio does not include any carbon sequestration work; however, WVU has been collaborating with China Energy on carbon capture, sequestration and utilization research for many years.