

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

**Questions from Ranking Member John Barrasso, M.D.**

**Question 1:** You were an important part of the American delegation that negotiated the Paris Climate Agreement and have written extensively about your support of it. As I have said in the past, this agreement raises energy prices for Americans without solving climate change. China is the world's largest emitter of greenhouse gases.

- a. Do you believe the Chinese Communist Party is being honest with the world about their emissions?

**Answer 1a:** While any emissions estimate is subject to some measurement error for China there are numerous problems that have exacerbated this issue. There have been several instances where reported emissions are different than figures available from outside verification. This becomes a challenge given the scale of China's economy and emissions profile. To mitigate this, third party data sources can provide estimates that give us the ability to fact check the Chinese. This problem is another reason why it is critically important that the U.S. remain at the table for the Paris Agreement, to ensure that all parties adhere to the same rules for measurement, reporting, and verification of their emissions, and that these rules are as rigorous as possible.

- b. In general, do you believe that the Chinese Communist Party is an honest partner when they sign on to international agreements, such as the Paris Climate Agreement?

**Answer 1b:** I believe that the U.S. needs to tread very carefully with respect to Chinese engagement in international agreements. Now that we are back at the table, the U.S. has the power to deploy the Paris Agreement to hold major emitting countries like China to account. Using the Paris Agreement, the U.S. will be able to better monitor China's emissions, and to ratchet up pressure on them, where and when appropriate.

**Question 2:** In a 2009 report that you contributed to about China, the report recommended that the U.S. support Chinese carbon capture technology and "facilitate additional collaboration in preferred Chinese areas." In addition, the report states, "Collaborating with the United States on CCS will give China more political capital to press for collaborative efforts in other preferred areas, such as technology transfer and investment in the fields of renewable energy and energy efficiency."

- a. Do you agree?

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

**Answer 2a:** The line referenced was an attempt to characterize how China might see the value of such cooperation. The context for U.S.-China collaboration has changed substantially since 2009. The current tension in our relationship would not make this level of cooperation advisable. Any cooperation with China would need to be evaluated in the context of the current state of our relationship and on a case by case basis.

- b. Do you believe China should collaborate with the U.S. on carbon capture technology for the purpose of China accruing “more political capital” in order to strengthen its hand in terms of promoting its other preferred technology areas?

**Answer 2b:** The context has changed since 2009, and I do not believe that CCS cooperation will grant China “more political capital” in comparison to the United States. CCS is a realistic means of mitigating China’s carbon intensive energy sector. There is an opportunity for the United States to expand its work in this area regardless of China’s action are on CCS.

- c. Do you support China’s efforts to gain technology transfer and investment from the U.S. and other countries?

**Answer 2c:** No. I take this concern seriously. If confirmed, I will continue DOE’s long standing work to address risk from China’s actions through DOE-specific actions, with the interagency, and through the CFIUS process (Committee on Foreign Investment in the United States) where DOE plays a major role in protecting U.S. national security interests.

- d. Do you have any concerns about China’s efforts to gain technology transfer and investment from the U.S. and other countries?

**Answer 2d:** Yes. DOE has established an enterprise-wide mechanism to coordinate actions related to research security and is actively working with the White House and the interagency to implement National Security Presidential Memorandum -33 on Government-Supported Research and Development National Security Policy. DOE has developed a series of policy initiatives to reduce the risk posed by specific threats, including threats posed by certain foreign governments, to the U.S. research enterprise including the DOE national laboratories.

DOE is also a prominent member of CFIUS and works through that process to address national security risks in foreign investment from all countries, including China.

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

- e. Do you support the manufacture of renewable energy and energy efficiency technologies in China?

**Answer 2e:** Not when it is at the expense of our national security interests or results in unfair competition that harms U.S. companies and U.S. jobs.

- f. Do you have any concerns about the manufacture of renewable energy and energy efficiency technologies in China?

**Answer 2f:** Yes, when it is not consistent with our national security interests of maintaining safe supply chains or the economic well-being of U.S. companies trying to compete on a level playing field.

- g. Do you have any concerns about collaboration with China – and in particular, with affiliates of the Chinese Communist Party that take an aggressive posture towards the U.S.?

**Answer 2g:** Yes, I have significant concerns about collaboration with China and DOE has taken action to mitigate risk. For example, DOE has prohibited federal and laboratory personnel from participating in foreign government talent recruitment programs sponsored by countries of risk (China, Russia, Iran, and North Korea) and restricted participation in other foreign government sponsored or affiliated activities.

**Question 3:** The U.S. is the world's largest oil and natural gas producer.

- a. On balance, is that a good thing or a bad thing?

**Answer 3a:** A good thing.

**Question 4:** The U.S. has among the lowest energy prices in the developed world.

- a. On balance, is that a good thing or a bad thing for U.S. competitiveness?

**Answer 4a:** A good thing.

**Question 5:** The U.S. exports oil, natural gas, and coal to many countries, making it an influential supplier in global energy markets.

- a. On balance, is that a good thing or a bad thing?

**Answer 5a:** A good thing.

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

**Question 6:** You have some previous experience negotiating international climate change deals.

- a. What experience do you have negotiating oil, gas, coal, or nuclear energy deals?

**Answer 6a:** As Senior Advisor and India Counsellor to the U.S. Special Envoy on Climate Change from 2013-2016 I participated in multiple discussion on energy cooperation across a range of bilateral and multilateral platforms. As Principal Deputy Assistant Secretary of Energy for International Affairs from January 2021 to May 2021, I oversaw negotiations on all energy cooperation in the Office of International Affairs at DOE.

- b. If confirmed, will you be an advocate for these important U.S. industries that employ so many people?

**Answer 6b:** I will. If confirmed, I intend to triple the size of the Market Development Office in the Office of International Affairs, and I will work every single day to help create good-paying jobs in the United States.

**Question 7:** In 2016, then Vice President Joe Biden called Russia's Nord Stream 2 a

*“fundamentally bad deal for Europe.”*

His White House spokesman reiterated that view during the first week of his presidency.

- a. In your view, is Nord Stream 2 a bad deal for Europe?

**Answer 7a:** Yes, Nord Stream 2 is a bad deal for Europe. Russia has repeatedly used its energy resources as a tool to further its coercive foreign policy.

**Question 8:** Major U.S. allies, including India, Japan, and Korea, have said U.S. LNG imports are important to their energy security.

- a. Do you agree that U.S. LNG exports can help improve the energy security of our allies while providing good-paying jobs all along the natural gas production and transportation supply chain?

**Answer 8a:** When coupled with natural gas power projects that utilize carbon capture and storage and supplied by infrastructure that limits methane leaks, U.S. LNG exports can offer a secure and lower

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

carbon alternative to coal and other unabated fossil fuels and can provide good-paying jobs for Americans.

- b. If confirmed, what will you do to support expanded U.S. LNG exports?

**Answer 8b:** I believe U.S. LNG exports can play a role in reducing international consumption of fuels that have greater contribution to greenhouse gas emissions. If confirmed, I look forward to working with U.S. industry to reduce emissions across the supply chain and to promote the export of U.S. energy technologies.

**Question 9:** You have written in Articles and have testified about the importance of transparency rules in implementing the Paris Agreement. President Biden’s recently announced Nationally Determined Contribution would commit the United States to a 50 to 52 percent reduction in net greenhouse gas emissions by 2030 compared to 2005. The White House has said its pledge was the result of:

*“[A] bottom-up analysis of existing and potential policies and measures at the federal level . . . The analysis considered multiple pathways across all sources of greenhouse gas emissions.”*

To date, we have not seen that analysis. I would remind you that the Obama Administration never released an analysis of its Paris pledge either.

- a. Would you agree that the administration has a responsibility to the public, to Congress, and to the outside world to release a detailed plan showing how it will meet its target and how much it will cost?

**Answer 9a:** On January 20, 2021 the Biden Administration rejoined the Paris Agreement and set a course for the United States to reach net zero emissions by 2050. This includes a whole-of-government process, organized through President Biden’s National Climate Task Force, to establish this new 2030 emissions target, on which the new U.S. Nationally Determined Contribution (NDC) is based. I would refer you to the Task Force for additional details. My understanding is that the administration sees multiple pathways to achieving this target.

The new U.S. NDC will support good-paying union jobs, strengthen America’s working communities, and empower the U.S. to build more resilient infrastructure, expand access to clean air and drinking water, and spur American technological innovations. A 50-52% emissions reductions from a 2005 baseline by 2030 is ambitious and achievable.

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

- b. Do you agree with me that it is important that the independent Energy Information Administration should analyze the president’s goal?

**Answer 9b:** I would refer you to the White House climate team for questions on the U.S. NDC. There is an extensive base of literature, from academics, think tanks, government, and others that demonstrate multiple pathways to 50% emissions reductions.

**Question 10:** The International Energy Agency says it takes an “*all-fuels, all-technology approach*” that “*enhances the reliability, affordability and sustainability of energy.*”

- a. Do you agree with IEA’s “all-fuels, all technology” approach?

**Answer 10a:** I believe a diverse mix of energy sources, paired with appropriate measures to abate emissions, will lead to more reliable, sustainable, and affordable energy. The challenge is neither the sector nor the source of energy. It is the emissions. I appreciate the IEA’s consistent and comprehensive modeling and analysis of energy systems across all fuels and technologies as an important input—but by no means the only input—to our own understanding of energy system options.

- b. Are fossil fuels part of that?

**Answer 10b:** Yes, paired with appropriate measures to abate emissions. We will continue to work with our international partners to make fossil energy cleaner. The President’s FY 2022 budget proposes a substantial increase to DOE’s Office of Fossil Energy and Carbon Management’s budget to advance carbon management, including point-source carbon capture, direct air capture, carbon dioxide conversion approaches, and reliable carbon dioxide storage. DOE is also a global leader on international collaboration on CCUS, often working closely with the IEA’s CCUS unit. We are, and must continue to be, a global leader on CCUS policy and technologies. The same is true for hydrogen.

**Question 11:** According to the International Energy Agency, 770 million people around the world, most of them in Sub-Saharan Africa, still do not have access to electricity. Fossil fuels are still the option of choice for power generation in many developing countries. A recent Oxford University study in *Nature* found that by 2030 in Africa, “*Fossil fuels will continue to dominate generation capacity, accounting for 62% of the total, and half of all newly commissioned capacity.*”

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

This administration, however, is determined to prohibit financing coal and natural gas infrastructure in developing countries. IEA's Net Zero by 2050 report also said that investors should stop funding new oil, gas and coal projects beyond this year if the world wants to reach net zero emissions by mid-century. China already funds about 70 percent of the coal plants built globally.

- a. Do you think it's realistic to expect that China will stop funding coal plants?

**Answer 11a:** In the near term, no. That said, their competitive position is set to erode. Developing countries have seen the perils of dirty, low-performance Chinese projects. We see advantages in providing a cleaner alternative for partner countries that links our domestic manufacturing goals with our international climate goals. At the same time, we should continue to pressure China to cease financing these projects.

- b. Do you think China's influence increases or decreases in countries where these projects are funded?

**Answer 11b:** China has an opportunity to increase its influence in countries where they are major finance sources for these types of projects. As I stated in my testimony, China's Belt and Road initiative is not just a threat to the climate, it is a threat to U.S. security.

**Question 12:** Shortly before President Biden's climate change summit, China's Vice Foreign Minister Le Yucheng told the Associated Press, "*Some countries are asking China to do more on climate change. I am afraid this is not very realistic.*"

- a. Do you agree with him?

**Answer 12a:** No. Abundant independent analysis has demonstrated that it is absolutely realistic for China to do more.

- b. Isn't it true that China is still considered a developing country in the UNFCCC?

**Answer 12b:** The UNFCCC has listings of Parties that are not keyed to developed/developing status per se. China is not listed as a so-called "Annex 1" Party and is therefore considered a non-Annex I Party under that agreement.

- c. Did the Paris Agreement change that? If not, why not?

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

**Answer 12c:** The Paris Agreement does not contain any listings of Parties, consistent with the US interest of having particular mitigation-related provisions apply to all Parties, including the major economies, both developed and developing.

**Question 13:** Russia's growing involvement in the Arctic is an increasing concern. About 70 percent of Russia's oil and gas reserves are on the continental shelf off its coast, mostly in the Arctic. Russia will have no hesitation in developing these resources.

- a. Should the U.S. develop its own Arctic offshore energy resources, or should only Russia do so?

**Answer 13a:** Russia's massive investment in Arctic oil and gas production, including offshore efforts, is bringing new challenges to the Arctic, including the Bering Strait region in Alaska through which much of the exports flow. This investment has led to widespread ecological damage in the Russian Arctic in addition to its contribution to climate change. DOE believes all energy investment in the Arctic need to take place in an environmentally sustainable, community supported way. DOE's Arctic Energy Office in Fairbanks, Alaska was revived to bring the resources of DOE to Arctic communities and institutions with science and energy needs, whether renewable or fossil.

**Question 14:** In the past, you have written extensively about carbon capture utilization and sequestration. I have long been a supporter of these technologies. Wyoming is a leader in carbon capture research. At the Integrated Test Center in Gillette, researchers are developing innovative solutions that will allow us to keep using Wyoming's natural resources to benefit American livelihoods.

- a. If confirmed, will you commit to working with me to continue advancing these technologies?

**Answer 14a:** Yes.

- b. Will you describe the importance of innovation when addressing a changing climate?

**Answer 14b:** Innovation in CCUS and other technologies is vital to addressing climate change. The IEA estimates that over 50 percent of technologies needed to achieve climate goals by 2050 are pre-commercial. The pace and scale of innovation must accelerate to effectively address climate change. As the world's pre-eminent innovator, the United States must remain a global leader on energy innovation.

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

**Question 15:** China steals technology and intellectual property from U.S. companies and labs. China uses forced labor and China manipulates markets in materials like rare earth and solar panel production to its advantage.

- a. Do you agree with that assessment?

**Answer 15a:** Yes.

- b. Given this, should we be increasing our collaboration with China on climate change?

**Answer 15b:** The Department of Energy is not currently engaging in active collaboration with China on climate change.

- c. What will you do as Assistant Secretary to put an end to this kind of misconduct?

**Answer 15c:** If confirmed, I will take these concerns seriously and take action to address them. DOE has already prohibited federal and laboratory personnel from participating in foreign government talent recruitment programs sponsored by countries of risk (China, Russia, Iran, and North Korea) and restricted participation in other foreign government sponsored or affiliated activities.

DOE considers such programs to include any foreign-state-sponsored attempt to acquire U.S. scientific-funded research or technology through foreign government-run or funded recruitment programs that target scientists, engineers, academics, researchers, and entrepreneurs of all nationalities working or educated in the United States. DOE also partnered closely with the national laboratory scientific community to develop the Science and Technology Risk Matrix, which takes a risk-based approach to identifying critical and emerging technology areas that have potential economic and national security implications, but that do not otherwise have traditional protections in places such as those for export controls and classified information. DOE has developed protective measures around these technologies and is considering additional actions.

DOE is also a co-chair of the Subcommittee on Research Security led by the White House Office of Science and Technology Policy (OSTP) and is actively working to implement National Security Presidential Memorandum-33 on Government-Supported Research and Development National Security

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

Policy. If confirmed as Assistant Secretary, I will continue to push these programs and actively monitor these issues, seeking new methods that can protect U.S. intellectual property, and that can counter forced labor and other abuses.

**Question 16:** When you were at the Center for American Progress in 2009, you and John Podesta issued a report, “Breaking Through on Technology.” Concerning intellectual property, the report says:

*“The developers of existing technology, some of which is subject to patents restricting its generic manufacture and use, should be assured of strong enforcement of their IP **if they license and do so at reasonable cost.**”*

- a. Do you still believe technology developers should have their intellectual property protected only “if they license and do so at reasonable cost”?

**Answer 16a:** This was not intended to be an exclusive claim. Intellectual property, including patents, know-how and trade secrets all need strong protections regardless of whether or not these are licensed technologies. IP is oftentimes the “crown jewel” of our best new innovative ideas in U.S companies.

**Question 17:** Recently the Biden Administration gave the Russian-supported Nord Stream 2 pipeline the green light to proceed by not issuing any new sanctions.

This decision came days after Russian hackers attacked the U.S. Colonial Pipeline and created a gasoline shortage along the Eastern Seaboard that lasted about a week.

Yet the Biden Administration killed the Keystone XL Pipeline in the U.S. at a cost of 1,000 U.S. jobs and another 10,000 expected U.S. jobs.

Does it make sense to you to give a green light to a Russian pipeline while halting a job creating American pipeline, especially so soon after Russian hackers shut down an existing American pipeline?

**Answer 17:** President Biden has been clear from the beginning that the position of his Administration is that the Nord Stream 2 pipeline is a bad deal for Europe and European energy security. That position has not changed. We remain committed to helping our European partners bolster their energy security and to do so in a way that maintains the principle of energy diversification while partnering on technologies and policies that would accelerate the clean energy transition so that we can achieve our shared goal of carbon neutrality by 2050.

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

I would refer you to the Department of State on details on the sanction program.

DOE continues to engage the German government at multiple levels to make our opposition to the pipeline and the potential sanctions risk clear, and DOE will continue to underscore U.S. strong, bipartisan opposition to this Russian malign influence project.

**Question 18:**

- a. As a top global oil producing and exporting country, the United States plays a significant role in global oil markets. Do you believe the US should have a relationship with OPEC+?

**Answer 18a:** No, I do not believe that the United States should have a direct relationship with OPEC+.

- b. If so, how do you envision this relationship?

**Answer 18b:** The United States is and should remain committed to open, competitive, and transparent global energy trade. In support of this policy, U.S. policymakers regularly engage in consultations with major oil producing countries in a manner that strengthens global energy security and supports global economic growth. These relationships enable the United States to remain central to discussion and policies impacting America's access to affordable and reliable energy supply without direct association with OPEC as an institution.

**Questions from Senator James E. Risch**

**Question 1:** China and Russia continue to make robust investments in deploying nuclear technologies. The US must maintain leadership in the global nuclear technology market and not be left behind by international competitors. International collaborations in nuclear energy should be with the American government and American companies. Do you agree that US competitiveness in nuclear energy technologies needs to be a priority? How will you support US companies in their efforts to deploy US nuclear technologies around the globe, and specifically help them compete with the likes of Russia and China in the global nuclear tech market?

**Answer 1:** Yes, I agree that U.S. competitiveness in nuclear energy technologies needs to be a very high priority. If confirmed, I will continue the work that the Department of Energy can bring to the table on technological innovation and advanced research to strengthen American leadership in the next generation of nuclear energy technologies. I will also work to leverage DOE's diplomatic and multilateral engagements such as the Clean Energy Ministerial, Mission Innovation, the Partnership for

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

Transatlantic Energy Cooperation as well as bilateral platforms such as our various Strategic Energy Dialogues to advance U.S. competitiveness on nuclear energy technologies and help meet this undeniable challenge we face from Russia, China, and other competitors.

**Questions from Senator Steve Daines**

**Question 1:** Mr. Light, I recently introduced a Senate Resolution to encourage President Biden to submit the Paris Agreement to the Senate for review and consideration. Do you believe that President Biden should submit the Paris Agreement to the Senate for ratification, a process enumerated in the Constitution?

**Answer 1:** I would refer you to the State Department for any questions regarding the process applicable to joining the Paris Agreement.

**Question 2:** Mr. Light, the Keystone XL Pipeline would have provided tax revenue and jobs to communities in Montana. President Biden's revocation of the permit also affects our relationship with Canada, who has a vested interest in the pipeline. The pipeline would also have helped reduce transportation related emissions and ensured a safer delivery of oil and gas to U.S. refineries. What are your thoughts on the cancelation of the Keystone XL Pipeline permit and further, do you believe that trade with our Canadian allies is important to maintain and foster?

**Answer 2:** Canada is a key partner of the United States in energy trade, as well as our efforts to address climate change and protect the environment. If confirmed, I would look forward to working with Canadian counterparts to meet these challenges together. DOE does not manage the approval process for presidential permits related to cross-border liquid hydrocarbon pipeline infrastructure.

**Question 3:** Mr. Light, any reduction in domestic energy production in the United States will result in the need to source energy from foreign countries. Do you believe it is important for national and economic security for the United States to remain an international energy power?

**Answer 3:** Yes.

**Question 4:** Mr. Light, how do you see the United States leading in the research, development, deployment and international adoption of Carbon Capture technology?

**Answer 4:** The United States is a leader in this technology but we can and should do more. We have seen progress on CCUS over the past decade. In their recent CCUS status report, the Global Carbon

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

Capture and Storage Institute (GCCSI) noted that in 2020 there were 65 commercial CCUS projects in various stages of development worldwide. Many of these projects are in the United States, and DOE has supported some of these projects. Globally, we are pushing CCUS in both the multilateral and bilateral context. DOE has ongoing collaboration with partners in Asia and Europe. DOE is also advancing the Clean Energy Ministerial (CEM) CCUS Initiative is working to help catalyze this collaboration. The main objective of this initiative is to accelerate CCUS deployment through strategic partnerships with industry and the financial sector to truly accelerate both near and longer-term investment in CCUS.

**Question 5:** Mr. Light, Congress, with my direct support, has provided the Department of Energy with multiple new tools to expedite CCUS technology. How will you prioritize these new authorities if confirmed?

**Answer 5:** If confirmed, I will fully support the Department's continued efforts to move CCUS forward with our world-leading CCUS research and development programs and support CCUS deployment, which I believe will benefit from the 45Q tax credit. In line with strong bipartisan interests, the Administration supports large-scale CCUS efforts that leverage the best science and prioritize community engagement. To accelerate responsible carbon capture deployment and ensure permanent storage, the President's plan reforms and expands the bipartisan Section 45Q tax credit, making it direct pay and easier to use for hard-to-decarbonize industrial applications, direct air capture (DAC), and retrofits of existing power plants. DOE's CCUS RD&D investment strategy includes advancing technologies and pursuing approaches that can help in the transition to a net-zero carbon economy in coal and fossil-based power plant communities. This will leverage regional resources including our National Laboratories and existing labor forces to help achieve a clean energy economy.

**Question 6:** Mr. Light, it is critically important that the United States remains a leader in quantum computing. If China or other adversarial countries leap frog the U.S. it may be possible to unencrypt sensitive national security and military information. What role do you believe DOE should play to ensure the U.S. remains a global leader in quantum computing?

**Answer 6:** To maintain leadership in quantum information science and technology, the United States must continue to invest in our research enterprise and grow our own diverse and expert workforce while retaining our ability to attract global talent. DOE will take bold approaches that better couple all elements of the technology innovation chain and combine the talents of the program offices in our Office of Science, universities, national labs, and the private sector. We will do this through our

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

investments in Quantum Information Sciences (QIS) Research Centers, quantum internet and testbeds. These Centers promote basic research and early-stage development to accelerate the advancement of QIS across systems, theory, hardware, and software. Our Quantum Testbed activities provide researcher with access to novel, early-stage quantum computing resources and services. In addition, basic research in quantum information networks will focus on the opportunities and challenges of transporting and storing quantum information over interconnects and networks toward a vision to deliver a fundamentally new capability. Throughout, we must bolster research security while preserving the openness and collaboration that underpins the success of our research ecosystem.

**Question 7:** Mr. Light, Congress, with my direct support, has provided the Department of Energy with new authorities to advance quantum computing research. The Senate also recently passed new authorities for DOE quantum research under the Endless Frontier Act, or US Innovation and Competition Act. How will you work with colleagues at DOE to advance these new authorities?

**Answer 7:** There are several Offices within DOE that are advancing quantum information science applications. In particular, the programs within DOE's Office of Science have a coordinated research program in quantum computing and networking. If confirmed, I will work with the Office of Science and other offices within DOE to implement new authorities while protecting U.S intellectual property.

**Question 8:** Mr. Light, Montana, has become a hub for new quantum computing technologies. How can the Department work with businesses and universities in Montana to advance quantum computing technologies?

**Answer 8:** Robust innovation ecosystems in regions across the United States benefit all Americans by stimulating the creation of jobs and entire new industries. DOE works with businesses and universities across the country, including in Montana, to ensure that opportunities for innovation are open to all. Montana State University is already a partnering institution at the Co-Design Center for Quantum Advantage (C2QA), headquartered at DOE's Brookhaven National Laboratory. DOE will also continue to work with the Quantum Economic Development Consortium and their members to advance computing technologies, including companies such as Montana Instruments with its focus on cryogenic technology, which are critical to the future development of quantum technologies.

**Question 9:** Mr. Light, critical minerals are found in nearly every part of our economy. From energy production to smart phones, critical minerals are a key component of the global supply chain. Unfortunately, the

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

United States is reliant on foreign countries for many critical and strategic minerals. Do you believe that the U.S. should increase responsible domestic production of critical minerals?

**Answer 9:** DOE can support responsible domestic production and processing of critical minerals, and assist in supporting methods that make increased production and processing more sustainable.

**Question 10:** Mr. Light, the United States has some of the most strict environmental and labor standards in the world and mining in the U.S. is safer, cleaner, and more ethical than in many countries, especially compared to China, Russia and the DRC. Further, if the U.S. intends to increase renewable energy production, then it will need to increase the use of raw materials and critical minerals that need to be mined. It is my strong opinion that the U.S. should increase critical mineral and other raw material production both for supply chain issues and for environmental and labor issues. Despite this, many in the Biden administration oppose or are outright hostile to responsible domestic mineral production. Will you commit to using your voice and international and domestic experience to be an advocate for securing critical minerals supply chains?

**Answer 10:** If confirmed, I will advocate for securing critical mineral supply chains for the U.S. In response to President Biden's Executive Order on Securing America's Supply Chains, DoD (with substantial support from DOE) outlined the challenges facing critical materials. This report, along with DOE's report on High Capacity Batteries, objectively highlighted the need for increased acquisition of critical materials from diversified sources around the world, recycling and increased mining. All of these sources must be in line with increased environmental, labor and sustainability standards. Understanding where we are now on supply chains on critical minerals is only the first step. If confirmed, I will utilize the resources of the Office of International Affairs to increase our capacity to defend current supply chains against other actors and expand and protect them.

**Questions from Senator James Lankford**

**Question 1:** A report from the Obama administration in 2010 reinforced the importance of faith-based partnerships. Among the recommendations put forward in the report was to draw more on the local expertise and relationships of faith-based organizations as a way of filling gaps in the provision of essential services. Faith-based organizations are excellent, effective, and efficient at meeting the needs of our most at-risk populations. Do you agree that it is important to continue pursuing ways to engage and expand faith-based partnerships as a way of effectively addressing some of the most critical needs in our country?

**Answer 1:** Yes.

**U.S. Senate Committee on Energy and Natural Resources**  
**June 8, 2021 Hearing: Pending Nominations**  
**Questions for the Record Submitted to Dr. Andrew E. Light**

**Question 2:** The Supreme Court has, in multiple decisions, reiterated that religious organizations cannot be discriminated against in the distribution of a public benefit for which they otherwise qualify because of their religious beliefs or identity. Will you commit to ensuring that no policy of your Department will disqualify a religious organization from receiving aid or participating in grant programs simply because of the organization's religious beliefs or because the organization receives statutory protections for religious freedom like those in Title VII and Title IX?

**Answer 2:** Yes.

**Question 3:** An important part of prompting and expanding faith-based partnerships is providing clarity on the legal obligations that will be expected of faith-based organizations when they partner with the government. Title VII of the Civil Rights Act of 1964 protects the ability of religious organizations to hire employees that support its religious beliefs and mission. Do you agree that it is both logical and appropriate that religious organizations should be able to hire employees that support the religious mission and beliefs of the organization? Do you agree that it is inappropriate for the federal government to dictate to a house of worship or a religious organization what tenets of the faith should be observed? Will you commit to ensuring that any nondiscrimination policy implemented by your agency will reinforce the hiring protections that Congress has passed in Title VII for religious organizations?

**Answer 3:** If confirmed, I would follow the law with respect to religious organizations, consistent with Department of Energy policy on discrimination.

**Questions from Senator John W. Hickenlooper**

**Question 1:** The Office of International Affairs works to build international cooperation on climate and energy issues. Right now, we live in a world where it is simultaneously true that the U.S. plays an outsize role in global greenhouse gas emissions, yet is far from the only or even the leading contributor, coming in at just about half of China's greenhouse gas emissions, according to the World Resources Institute. In your estimation as Principle Deputy Assistant Secretary at the Office of International Affairs, what role does the United States' domestic climate policy play in our ability to credibly promote clean energy beyond our borders? What policies can the United States adopt at home to drive emissions reductions abroad while staying competitive in global markets?

**Answer 1:** To clarify, once I was nominated by President Biden for the position of Assistant Secretary of energy for International Affairs I stepped down from my role as Principal Deputy Assistant Secretary of International Affairs (PDAS).

Our international energy policy aims to promote energy sector innovation and related economic opportunities for U.S. innovators while also seeking to support our allies and partners as we collectively

**U.S. Senate Committee on Energy and Natural Resources  
June 8, 2021 Hearing: Pending Nominations  
Questions for the Record Submitted to Dr. Andrew E. Light**

race to decarbonize our economies. To be successful, we want to ensure that our international efforts align with domestic efforts, and critically, that U.S. bilateral and multilateral energy engagement directly serves the goal of creating American jobs.

If confirmed, I will work to improve U.S. competitiveness in energy technology and promote exports that accelerate the global energy transition. DOE's technical expertise support U.S. competitiveness in energy technologies and services to best position the United States to capture market share in the at least \$23 trillion investment opportunity the International Finance Corporation estimates was created by the initial 2030 commitments of emerging economies under the Paris Agreement. Pairing foreign technical assistance with U.S.-sourced technologies and services can help grow exports and promote investment opportunities for U.S. companies in overseas markets. Working closely with the Department of Commerce, including through its Trade Promotion Coordinating Committee, DOE can support and expand new administration initiatives and policy approaches to expanding our energy exports. If confirmed, I look forward to greatly expanding our market reach and opportunity on nuclear power abroad.