Chairman Senator Joe Manchin's Opening Statement
Thursday, November 4, 2021

Full Committee Hearing On The Potential
Non-Electric Applications Of Civilian Nuclear Energy

- The Committee will come to order.
- Normally when talk about nuclear energy we're talking about electricity generation, but today we will be discussing the non-electric applications of nuclear energy and systems integration.
- It is a technology set that will truly transform how we think about and use energy.
- And I want to thank our witnesses who will provide us with insights on how we can best deploy these technologies over the next decade.
- Earlier this year, we had a hearing that focused on the importance of maintaining our current nuclear fleet and developing advanced reactors.
- That hearing set the stage nicely for this one, as developing additional value streams for nuclear technologies will help their competitiveness in electricity markets.
- In addition, being pioneers in this endeavor will allow the U.S. a competitive edge in the international market.
- Reducing emissions in the industrial sector has been identified as a significant challenge that we must tackle in order to meet our climate goals.
- The U.S. has had success in lowering emissions in the electricity and transportation sector due to advances spearheaded by the Department of Energy in energy efficiency, renewables, batteries, and electric vehicles.
- But as we have progressed in these sectors, emissions from the industrial sector have increased by about 69 percent since 1990.

- The industrial sector also represents a significant portion of global emissions, accounting for approximately 28 percent of total greenhouse gas emissions.
- As developing economies begin to shift to more energy-intensive industries, the U.S. must be on the cutting edge in developing the technologies required to decarbonize industry.
- This shift is an enormous opportunity to deploy new technologies domestically and abroad to promote job growth here in the U.S. as the demand for nuclear technologies that reduce emissions and deliver industrial products such as hydrogen, chemical feedstock, district heating, water purification, and building materials increases.
- Last year we authorized the Nuclear Integrated Energy Systems Research, Development, Demonstration, and Commercial Application Program as a part of the Energy Act of 2020.
- And we are fortunate to have Dr. Shannon Bragg-Sitton, who is leading this crucial endeavor, with us today.
- The Department of Energy and National Laboratories are developing energy systems designed to be jointly operated with nuclear energy to reduce emissions in both the power and nonpower sectors while maximizing energy production and efficiency.
- In short, this program will help commercialize technologies to reduce emissions for water purification, heat for industrial processes, microgrids, district heating, and other various applications all through the use of nuclear energy.
- The Department of Energy is leading a Tri-Lab Consortium of Idaho National Lab, the National Renewable Energy Lab, and NETL in Morgantown, West Virginia, to pioneer the technologies to transform how we use energy.
- As we begin this transition it is my hope we can commercially deploy these types of technologies in West Virginia.

- However, West Virginia has had a ban on the construction of nuclear power plants for over two decades.
- This is something I would like to see changed—I believe advanced nuclear reactors hold enormous potential to provide opportunity to communities across the country with zero-emission, baseload power.
- I am very excited to get the utility perspective today from Dr. Paul Chodak on how we can best deploy the next generation of nuclear.
- With that, I'll turn it over to Ranking Member Barrasso for his opening statement.