**Testimony of KR Sridhar**
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**to the**
**Subcommittee on Technology, Innovation and Competitiveness**
**Committee on Commerce, Science and Transportation**
**United States Senate**
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Thank you Mr. Chairman and Members of the subcommittee for the opportunity to present testimony on the critical role of the United States government in fostering innovation and technology development in alternative energies.

My name is KR Sridhar and I am the principal co-founder and CEO of Ion America, a California-based fuel cell company intent on making a revolutionary change in America's energy future.

Ion America's vision is to make distributed energy generation ubiquitous; providing clean, efficient, high quality, reliable power, anywhere. Our technology can be extended to offer a viable energy storage solution and also an economical pathway to the hydrogen economy.

To realize this vision, Ion America has pioneered the development of the first commercially viable planar solid oxide fuel cell system. This type of stationary fuel cell, operating at higher temperatures than the ones being developed for cars, offers the potential to be more efficient, more reliable, "fuel flexible," and the least expensive of all fuel cell technologies to manufacture in volume and operate.

While the high temperature offers great benefits, it also poses inherent challenges that have inhibited the commercialization of Solid Oxide Fuel Cell technology….until now. Ion America has solved these significant challenges and is on the cusp of releasing our first commercial units.

My company can trace its roots to the Federal government's commitment to innovation. My co-founders and I began our fuel cell research as part of the NASA Mission to the Moon and Mars. For NASA, we were encouraged to look for innovative solutions. Our mission was clear and we knew we had the support of the federal government behind us.

When I left academia and NASA projects four years ago to found Ion America, I embarked on a new mission: A mission to create an innovative clean energy technology company with a world-changing commercial product: A fuel cell that produces clean, reliable, on-site electricity at a price competitive with the grid. But in order to achieve wide-scale adoption, products like ours need to achieve the cost reductions that can only occur when economies of scale are reached.

How do we get there?

I am here today to testify to the importance of the government's role in continuing to foster innovation—and help companies like mine in our national quest for a clean,

secure, energy future. I am here to urge you, Mr. Chairman and Members of the Senate, to take the necessary steps to help commercialize the next generation of innovative energy technology.

How can the government help?

I don't think the answer lies in the classic tools that the government uses to foster innovation. In order to foster the adoption of new, innovative energy technologies, the government needs to take a different approach-- an approach more about vision and leadership than about new tax policies, or research grants.

The federal government's key role in our generation's "energy-independence mission" is to ensure two critical things:

(1) a level playing field between new energy technologies and legacy petroleum-based solutions, and

(2) an early adopter marketplace that can help take new products to their economical volumes.

The federal government is the single largest consumer of energy in the country, consuming almost 1 Quadrillion BTUs of energy annually and spending over $200B on products and services. That fact gives it a lot of power and a lot of influence over the energy sector. A lot more influence perhaps than legislation ever could. The power of the single largest customer to shape a market should not be underestimated.

Given the market size and opportunity, private capital will be readily deployed to develop innovative energy technologies. Venture Capital investment dollars can usher new technologies up through the product development and testing stages, but the US government needs to commit to help American clean tech companies cross the proverbial chasm and become commercially viable.

The federal government needs to be an early adopter and **leading consumer** for viable innovative alternative energy technologies.

Congress should consider putting an alternative energy consumption quota in the federal budget. If the government mandated that each year 25 or 50% of its energy spend will go to alternative energy sources that meet a minimum set of criteria, it would signal a real commitment towards achieving a lasting energy solution. This isn't a mandate on the private sector. Rather it is a way for the federal government to lead by example, thereby taking significant steps to commercialize emerging energy technologies. Once the public sector takes the lead helping technologies achieve scale, the private sector will follow and we will be on the path towards energy security and independence.

In order to foster innovation, to enable new energy technologies that address the country's power needs, and to ensure the success of our energy-independence mission, the federal government must take the lead. If the United States Government would exercise its buying power when buying power it would be a monumental step towards supporting innovation and ending our addiction to foreign oil.

Thank You.