

## **Blue Ribbon Commission on America's Nuclear Future Subcommittee on Reactor and Fuel Cycle Technology**

**Summary of Planned Testimony on August 30, 2010  
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### **Venture Capital and the Nuclear Industry**

Venture capitalist provide entrepreneurs with the capital and other assistance they require to build companies that bring innovations to market in a timely way. Unfortunately, venture capital has played a minor role in the nuclear industry. This is not because there are no talented entrepreneurs with world-changing ideas for nuclear applications or that venture capitalist are not interested in nuclear applications; it is because the federal nuclear regulatory agencies, the Department of Energy (DOE) and the Nuclear Regulatory Commission (NRC), with military roots and multiple functions are largely opaque to startup companies targeting nuclear power. Neither of these agencies charter's focus on safe, clean, electricity production and lack elements such as promotion and educating the public to the benefits of nuclear power.

To successfully assist venture-backed nuclear startups, these regulatory agencies would need to establish processes that start with rapid engagement and proceed along an orderly, predictable and finite path to conclusion. Real-world experience suggests that altering the missions of long-established institutions is difficult if not impossible. Therefore, I recommend establishing a new federal agency that would subsume, extend and enhance portions of the nuclear activities of both the DOE and the NRC. This agency would be solely focused on nuclear-based electricity, a crucial source of energy for the 21<sup>st</sup> century. Best practices within federal agencies that work well with venture capital and entrepreneurs do exist. The best example is the Food and Drug Administration (FDA) in its specific role of reviewing, approving and monitoring new drug applications in addition to promoting and educating the public with science.

I recommend two other economic policy actions. First, a carbon tax. This would benefit nuclear and all non-carbon energy projects by establishing an economic standard by which projects would be measured. This would be far more effective than subsidies because base economics, not incentives, drive venture capitalists and venture-backed companies. Second, a nuclear power agency review process that does not charge back fees to companies is important. Capital is a barrier for any startup company. Startups find it difficult to provide substantial financial commitments in advance without any knowledge of the probability of success or an understanding of risk/reward.

### **About Ray Rothrock**

In 23 years as a venture capitalist, Ray Rothrock has invested in 47 companies resulting in a lifetime investment internal rate of return of 94%. A leader in his firm, he established Venrock's Internet practice in 1992 and its energy practice in 2004. He presently serves on the board of the National Venture Capital Association and its Executive Committee, the MIT Visiting Committee for the Nuclear Science and Engineering Department, and is chairman of the board of Tri Alpha Energy, a private venture-backed nuclear energy company. Ray has a BS in nuclear engineering from Texas A&M, a MS in nuclear engineering from MIT and an MBA from Harvard Business School. He began his career as a nuclear engineer.