Energy Planning Board Energy Plan Comments NYSERDA 17 Columbus Circle Albany, NY 12204-6399

Dear Sir or Madam,

I urge you to accelerate our transition to a clean energy economy with the ambition of an Apollo or Manhattan program, by dramatically increasing America's investment in innovative new energy technologies and systems. A wide range of policies aimed at increasing conservation, efficiency, and reducing emissions is vital, but carbon prices and regulations alone will not create new, clean and affordable energy systems soon enough or at the scale needed.

Needed America should be ramping up to invest a minimum of \$30 billion per year to develop, demonstrate, and stimulate the commercialization of a range of technologies and approaches that can provide affordable carbon-neutral energy and use that energy more wisely. This is less than half of what America already invests in military research and development. The United States is in a unique position to take the lead in this research and development effort, but we must work with others. The world, including China, India and other developing nations, needs affordable clean technologies now to avoid the lock-in of massive carbon emissions from conventional coal plants.

Energy sources available today cannot provide enough power to drive economic growth without damaging our climate system. We cannot predict with confidence which energy technologies will win in a future marketplace. For this reason, we need a diverse and strategically selected portfolio of investments. Potential solutions need to be explored and tested with hardware. Because the taxpayer dollar should be invested wisely, a relatively open process should be established that will select and support research and development projects based on technical merits. Public investment in clean energy will more than pay for itself, just as did the U.S. government investment in computer science and aerospace during the 1950s and '60s. Much of our economic growth since World War II resulted from technological developments that were accelerated and incubated by public investment — the Internet being only one example. Particularly critical are technologies that can be commercialized in five to twenty-five years — too long for venture capital, too short for basic research. Private firms are not making — and cannot be expected to make — the necessary level of long-term investments in energy and energy infrastructure research and development. The major problems confronting the nation and world require clean, secure, and affordable energy.

Sustained public investment now in a diverse portfolio of energy technologies will reduce climate risk, increase energy security, revitalize education, enhance our competitiveness, and strengthen the American economy.

Sincerely,

Michael G. Saccullo