

WASHINGTON DC – Today, Rep Michael Honda (CA-15), representative of Silicon Valley and member of the House Sustainable Energy and Environment Coalition, is reintroducing the Smart Electronics Act, to address the greenhouse gas impacts and energy costs of proliferation of electronic devices throughout the world, and the Nanotechnology Advancement and New Opportunities (NANO) Act.

OVERVIEW: Smart Electronics Bill

“This proliferation of electronic devices,” said Rep Honda, “if not made more energy efficient, will undermine efforts to increase energy security and reduce the emission of greenhouse gases responsible for global warming. The answer to this problem will not be found in stemming the tide of electronic gadget envy, no matter how functional or entertaining the device.□ The answer is found in better devices that are built more efficiently and run on less energy. Importantly, this legislation helps us green the electronics industry by providing the private sector with reliable standards and incentives and by educating and empowering consumers to make smarter and more efficient choices – all of which help cool the planet.”

Rep Honda’s legislation requires the Department of Energy (DOE) and the Environmental Protection Agency (EPA) to report to Congress within a year on several key areas to ensure we achieve the clarity needed for industry to thrive. First, the DOE and EPA must assess the potential for energy efficient electronics to receive an Energy Star designation, a program that primarily applies to household appliances, and the potential savings accrued (e.g. cost, energy) through a specific program focused on smart electronics**. Second, they must assess the global growth of electronics usage and utilization and the associated energy consumption. Lastly, the bill calls for the DOE and EPA to standardize a process for defining, categorizing, and ranking technologies as ‘smart’.

The International Energy Agency (IEA) estimates that by 2030, new electronic gadgets will triple their energy consumption to 1,700 terawatt hours, the equivalent of the home electricity consumption of the US and Japan combined. According to the IEA, the international community will have to build over 15,000 wind turbines (or 200 nuclear power plants) to power all the TVs, iPods, PCs and other home electronics expected to be plugged in by 2030. The electric bill to power all household electronics will top \$200 billion a year, compared with last year’s bill of \$80 billion. Most of this increase in consumer electronics will occur in developing countries, where economic growth is outpacing developed nations and ownership rates of gadgets are lowest.

Sehat Sutardja, CEO of Marvell Semiconductors, Inc., a leading industry proponent of the bill and a founder of Silicon Valley’s Smart Electronics Initiative, commented, “In the next decade, the world will consume billions of new electronic products, from Smartphones, to tablet

computers to televisions. The Smart Electronics Act is landmark legislation that will ensure that those new products are more energy efficient and earth-friendly- reducing our resource demands and carbon footprint for generations to come.”

****“Smart Electronics” are defined in the bill as consumer electronics with at least one or more of the following characteristics: power-factor correction, stand-by power, communication with smart grid and in-home and networked energy monitoring equipment, on-demand and variable processing speed semiconductors, off-peak operation and charging, have low power switchable modes, and achieve greater efficiency with multiple functions on semiconductors.*

OVERVIEW: Nanotechnology Advancement and New Opportunities (NANO) Act

Rep Honda issued the following statement for the record on August 1, 2011, regarding the introduction of the NANO Act:

“The NANO Act is a comprehensive bill to promote the development and responsible stewardship of nanotechnology in the United States. The legislation draws upon the work of the Blue Ribbon Task Force on Nanotechnology that I convened. The Blue Ribbon Task Force included nanotechnology experts with backgrounds in established industry, startup companies, consulting groups, non-profits, academia, government, medical research, and venture capital from around my home state of California, which is a leader in the field of nanotechnology.

Nanotechnology has the potential to create entirely new industries and radically transform the basis of competition in other fields, and I am proud of my work with former Science Committee Chairman Sherry Boehlert on the Nanotechnology Research and Development Act of 2003 to foster research in this area.

But one of the things I have heard from experts in the field is that while the United States is a leader in nanotechnology research, our foreign competitors are focusing more resources and effort on the commercialization of those research results than we are.

In its report Thinking Big About Thinking Small, which can be found on my website, the Blue Ribbon Task Force on Nanotechnology made a series of recommendations for ways that the nation can promote the development and commercialization of nanotechnology. The NANO Act includes a number of these recommendations.

In addition, the bill addresses concerns that have been raised about whether the federal government is doing enough to address potential health and safety risks associated with nanotechnology. The NANO Act requires the development of a nanotechnology research strategy that establishes research priorities for the federal government and industry that will ensure the development and responsible stewardship of nanotechnology. This strategy will help to resolve the uncertainty that is one of the major obstacles to the commercialization of nanotechnology – uncertainty about what the risks might be and uncertainty about how the federal government might regulate nanotechnology in the future.

The NANO Act also includes a number of provisions to create partnerships, raise awareness,

and implement strategic policies to resolve obstacles and promote nanotechnology. It will: create a public-private investment partnership to address the nanotechnology commercialization gap; establish a tax credit for investment in nanotechnology firms; authorize a grant program to support the establishment and development of nanotechnology incubators; establish a Nanoscale Science and Engineering Center for “nano-CAD” tools; establish grant programs for nanotechnology research to address specific challenges in the areas of energy, environment, homeland security, and health; establish a tax credit for nanotechnology education and training program expenses; establish a grant program to support the development of curriculum materials for interdisciplinary nanotechnology courses at higher education institutions; direct NSF to establish a program to encourage manufacturing companies to enter into partnerships with occupational training centers for the development of training to support nanotechnology manufacturing; and call for the development of a strategy for increasing interaction on nanotechnology interests between DOE national labs and the informal science education community.

I look forward to working with Science, Space and Technology Committee Chairman Hall and Ranking Member Johnson on this bill and their committee’s other efforts to reauthorize the nation’s nanotechnology research and development program.”

####