
Laying a Foundation for Sustainable Growth in New Jersey in the Wake of Hurricane Sandy

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Hurricane Sandy damage in Mantoloking, N.J. © Mario Tama/Getty Images

Superstorm Sandy has dramatically altered NJ's economy as well as its geography for years to come. While there may be a short-term "bounce" from the money spent on reconstruction, the thinking about how that rebuilding should be carried out is already moving very quickly toward the view that it needs to be substantially more hurricane-proof and disaster-resistant, more resilient, and — in a word — more sustainable.

*This paper sets out some considerations and recommendations for creating a foundation for sustainable growth in New Jersey, describes some of the initiatives we are taking through our new nonprofit organization, the **Center for Regenerative Community Solutions**, and makes specific suggestions for policies and programs for state and local government to support these and similar initiatives from other organizations.*

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³ **Center for Regenerative Community Solutions (CRCS)** is a new nonprofit specifically focused on applying the framework of regenerative design to local communities, including the NJ Shore areas most impacted by Hurricane Sandy. For more information, see <http://crcsolutions.org>.

Context

In August 2010, along with several colleagues, one of us co-authored a white paper on a “sustainable growth strategy” for New Jersey,⁴ which laid out the argument that we need to think about a robust economy *and* a restored and healthy environment as equally essential to New Jersey’s future. In essence, the paper stated:

1. New Jersey needs to articulate a positive “sustainable growth” strategy that tangibly ties our economy to the growing global demand for green products and practices, and builds the market for the businesses and technologies where we have significant strengths and core competencies that can be turned into a competitive advantage.
2. We do not necessarily need “more” of everything, but we do need better — better housing, better transportation, cleaner and therefore better energy generation, smarter technologies, and smarter government. The new mantra may not be “more is better,” but rather “better is more.”
3. New Jersey has a unique opportunity to play a leadership role in this field, leveraging its traditional strengths and the ground it has already gained in renewable energy and other fields.
4. The opportunities that are open to us are also those that can be

embraced by a strong majority of people on both the “left” and the “right.”

5. This “game-changing economic strategy” could be the Green Economy, but only if innovation, production, and consumption are driven by a different model, reinforced by state and federal policies that actively support the demand for greener products and services.

While there have been some positive state initiatives — including the establishment of the Office of Sustainability and Green Energy at DEP, passage and approval of legislation strengthening NJ’s solar program, and introducing Property Assessed Clean Energy (PACE) funding options for municipalities — the reality has lagged far behind this vision.

Most recently, in fact, NJ Spotlight reported that “New Jersey’s Faltering Green Economy Mirrors [the] National Trend,” and pointed out that

Despite repeated assertions by lawmakers and Christie administration officials that New Jersey is taking a leading role in creating green jobs, the report indicated that so far this is not the case. The top 10 green-jobs states in the third quarter of 2012 were (in descending order): California, New York, Oregon, Washington, New Mexico, Texas, North Carolina, Minnesota, Illinois, and Nevada.⁵

⁴ Along with Joel Harmon, Kent Fairfield, Jeana Wirtenberg, Matt Polsky, and Rob Benjamin, colleagues at the Institute for Sustainable Enterprise at Fairleigh Dickinson University: “Developing and Implementing a Sustainable Growth Strategy for New Jersey,” August 2010. Available at <http://view.fdu.edu/default.aspx?id=8122>.

⁵ Source: <http://www.njspotlight.com/stories/12/11/08/new-jersey-s-faltering-green-economy-mirrors-national-trend/>. Cf. <http://www.njbiz.com/article/20121204/NJBI201121209949/-1/>.

Finally, Hurricane Sandy has altered not only the NY-NJ-Connecticut shoreline, but also has shifted the conversation around climate change. New York's Governor Cuomo said, "Anyone who says there is not a dramatic change in weather patterns is denying reality."⁶

NYC Mayor Michael Bloomberg announced on November 1 that he was supporting Obama for President because of his stance on climate change, stating

Our climate is changing. And while the increase in extreme weather we have experienced in New York City and around the world may or may not be the result of it, the risk that it might be -- given this week's devastation -- should compel all elected leaders to take immediate action.⁷⁸

Blogger Marc Gunther speculated that "This hurricane might even turn New Jersey's Governor Chris Christie into a climate hawk,"⁹ and while this might

⁶ Source:

<http://www.bloomberg.com/news/2012-11-02/listening-to-hurricane-sandy-climate-change-is-here.html>.

⁷ Source:

<http://www.bloomberg.com/news/2012-11-01/a-vote-for-a-president-to-lead-on-climate-change.html>.

⁸ Since then, in his 2nd Inaugural Address President Obama spoke out forcefully for action on climate change, including a new energy future, and is expected to follow through with Executive Orders, EPA actions, and other measures to curb carbon.

⁹ Source:

<http://www.marcgunther.com/hurricane-sandy-a-climate-pearl-harbor/>.

seem surprising, in fact Gov. Christie has already acknowledged the reality of climate change. In August of 2011, even while vetoing the RGGI retention bill, "the governor said 'climate change is real.' He added that 'human activity plays a role in these changes' and that



Portion of Long Beach Island, NJ after Hurricane Sandy

climate change is 'impacting our state.'"¹⁰

While he has not (yet) raised the issue in connection with Sandy, what's relevant here is that "adaptation" to climate change is suddenly the watchword of the day, and sea-level rise is now being taken very, very seriously. Whereas in past years global warming critics have repeatedly called for "mitigation" (e.g., reducing the sources of greenhouse gas emissions), and such action is certainly of utmost importance, the current discussion is squarely focused on preventing further harm to natural and manmade systems and being prepared to withstand the increasingly negative consequences of climate change.¹¹

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http://www.nj.com/news/index.ssf/2011/08/gov_christie_admits_climate_ch.html.

¹¹ "Mitigation" is also sometimes used to refer to efforts to "harden" manmade systems to

And there's good reason for this. As Elizabeth Kolbert wrote in *The New Yorker*:

A couple of weeks ago, Munich Re, one of the world's largest reinsurance firms, issued a study titled "Severe Weather in North America." According to the press release that accompanied the report, "Nowhere in the world is the rising number of natural catastrophes more evident than in North America." The number of what Munich Re refers to as "weather-related loss events," and what the rest of us would probably call weather-related disasters, has quintupled over the last three decades. While many factors have contributed to this trend, including an increase in the number of people living in flood-prone areas, the report identified global warming as one of the major culprits: "Climate change particularly affects formation of heat-waves, droughts, intense precipitation events, and in the long run most probably also tropical cyclone intensity."¹²

One of the goals of this paper, therefore, is to emphasize that it's important to look at long-term sustainability if we are going to "build back better."¹³ The cost of restoring buildings, boardwalks, drainage systems, power lines, etc. requires us to think about where and whether we are spending our money

prevent future damage from occurring. (Cf. Senate testimony on the effects of Hurricane Sandy on transportation systems in the Northeast, note 19 below.)

¹² Read more:

<http://www.newyorker.com/online/blogs/newsdesk/2012/10/watching-hurricane-sandy-ignoring-climate-change.html#ixzz2CQ0dNS00>.

¹³ "Haiti – A Way Forward," Working Group for a Sustainable Future for Haiti, Institute for Sustainable Enterprise Fairleigh Dickinson University, February 2010. Ironic that we may all need to learn from each other's disasters what resilience really looks like.



The iconic image of New York City under water wisely, for in the end it all comes out of our individual and collective pockets.

As important as it is to build back sustainably, in the interests of Shore communities — which are on the front lines of the impact of our changing climate — we must also be prepared to act urgently to diminish our society's contribution to climate change. The current international consensus is that we should aim to prevent the planet from anything greater than 2°C of warming, which itself is sufficient to cause enormous human and economic damage; but the course we are currently on is on track to exceed that, bringing about rapidly rising sea levels and consequent coastal devastation.

According to some estimates, a warming of 3°C would be sufficient to melt the Greenland and Antarctic ice sheets, which could raise the seas by as much as 25 meters (82 feet).¹⁴ Adaptation to this level of climate change might be simply impossible for many existing shore communities.

¹⁴ Sivan Kartha, "Climate Change: Redemption through Crisis," Tellus Institute, 2006.

And this is only *one* of the challenges we must have the economic resources to address in coming decades. What's needed is really a massive effort to restore and regenerate the entire planet; and as part of this each local and regional community needs to be strengthened and made more comprehensively self-sufficient.

The Idea of Sustainable Growth

The very idea of “sustainable growth” may seem objectionable if not implausible to those working in the sustainability field. After all, nothing can “grow” forever; there is a natural limit to the resources and the “carrying capacity” of the planet. But “economic growth” does not need to mean *exclusively* “material growth,” especially not in the wasteful, excessive, unlimited sense that our current economy is based on.

As we stated in the earlier paper, “We do not necessarily need ‘more’ of everything, but we do need better — better housing, better transportation, cleaner and therefore better energy generation, smarter technologies, and smarter government. The new mantra may not be ‘more is better,’ but rather ‘better is more.’”

It is also becoming increasingly clear — and to an increasing number of people — that happiness and prosperity are not synonymous with financial and material wealth alone, although most of us prefer a reasonable degree of comfort as part of our standard of living. The issue, then, is how we can achieve this level of comfort while supporting and in fact regenerating the entire living

ecosystem, rather than doing so at the expense of other people, species, and the environment.

While we could indeed argue, as former World Bank economist Herman Daly has done for the past several decades, that “development” is a better term for what we’re looking for than “growth,” we prefer to use “sustainable growth” precisely to make the point that *growth* — which like it or not is a perfectly understandable goal for economists and politicians — must somehow be made sustainable if it is to mean anything at all.

For it's not simply that the consequences of our actions will fall upon our grandchildren. The chickens are already coming home to roost. What we're experiencing now is the result of the greenhouse gases put into the atmosphere over the past 150 years, and most particularly over the past 50 years, less than the span of a single lifetime (and it may take us at least as long again to begin to slow and reverse this damage to the biosphere).

Moreover, how we solve our short-term issues is going to affect how we address our longer term challenges. What we need to be thinking about, as we rebuild in the wake of storms and tornados and tsunamis, is how we can protect ourselves and our communities from future disasters, and how we can preserve our habitat in order to pass it along to future generations.

Here are some of the main areas where we need to think about operating differently in both long-term and short-term ways:

- Securing Our Sources of Energy
- Smarter Land Use and Building
- More Energy-Efficient Transportation and Travel
- Local Chemical-Free Food Production
- Clean Water with Less Treatment
- Hardening Our Infrastructure
- Regenerating Our Communities
- Restoring Our Environment
- Maintaining Our Health
- Ensuring Growing Prosperity for Others

While the solutions we need in these areas are not always simple, they are available, and in some cases all we need is the information and the political will to put them into practice.

One of our organization's initiatives is to try to bring these solutions to bear in a very practical way for the people, and the communities, of New Jersey.¹⁵ But we're certainly not alone in this, and this is why we need a growing number of ways to collaborate and to coordinate our efforts, and to ensure that our state's policies are consistent with the requirements for sustainable longer-term solutions, at least the ones we can presently see.

The goal of this paper, therefore, is to describe some of the foundational elements we need and can put in place now in order to build "a better tomorrow." And not just to make it for

¹⁵ Principally through ConservationTechnologies.net, a portal site for our own and others' initiatives to provide workable solutions for New Jerseyans.

another day, but "to put humanity on a different path, a path that leads to forever instead of to a dead end."¹⁶

The best way to convince people that we're on the right path is to actually get on it, which we simply are not at the present time. Bill McKibben's "Do the Math Tour" is one expression of this:

It's simple math: we can burn **565** more gigatons of carbon dioxide and stay below **2°C of warming** — anything more than that risks catastrophe for life on earth. The only problem? Fossil fuel corporations now have **2,795 gigatons** in their reserves, five times the safe amount. And they're planning to burn it all — unless we rise up to stop them.¹⁷

Which is an enormously challenging statement for government as well. Whose side will we choose to be on? Traditionally, conservatives have stood



Boats washed up at a "dead end" near Keyport, NJ

for the interests of established corporations, while liberals have seen

¹⁶ Jonathan Cloud: "Leading the Change to a Sustainable Future," EuroCharity Yearbook (2011)

¹⁷ Source: <http://math.350.org/>.

many of these same corporations as “the bad guys.” Of course, corporations do things that are both positive and negative from an environmental or social viewpoint. In the long run, however, unsustainable practices cannot prevail. The present predicament of BP — where its value has steadily declined since the Gulf Oil Spill — is perhaps a harbinger of the future for the fossil fuel companies that do not find ways to mitigate their negative consequences.

If this is the case, the good news is that we don’t have to focus solely on stopping the “bad guys” so much as we need to strengthen the capacity of the “good guys” to compete with them. If we can get people to *disinvest* in the old technologies, and invest in the newer, renewable ones; *if we can find solutions to the issues of industrial wastes and externalized costs; if we can build parallel financial and other regenerative systems; then perhaps we can accomplish what the planet needs without directly confronting the institutions that our society still relies on — at least until we’ve developed meaningful alternatives to them.*

In any case, it will take many years to redirect the economy onto an entirely sustainable path ; the point is to begin this process, using the “trimtabs” or “leverage points” of local revitalization. People who invest in their own communities are more likely to respect their natural and human boundaries, more likely to spread both wealth and opportunity, and more likely to build for the long term. “Sustainable growth” means just that — it’s growth that makes our local and global habitat more

sustainable, that creates wealth for those focusing on this outcome, and that devotes a growing amount of our time, effort, and money into “the higher pursuits.”

Ecological Regeneration and Transformational Change

The work of economic development in our time is not that of traditional GDP growth but that of implementing a different paradigm, a regenerative paradigm. This paradigm is already widely understood — conceptually, in terms of mitigation and adaptation to climate change, reducing the human burden on the planet’s natural systems, and restoring health to human and natural communities alike. It is now time to realize this in the world, shifting to a path of *sustainable growth*, of “societal permaculture,” of ecological, social, and spiritual regeneration as well as economic wellbeing. We’ve trashed the planet enough, and it’s now time to start over, to clean things up, and to rebuild along different lines.

We’ve suggested some of the ways that this applies to New Jersey in the wake of Hurricane Sandy, but in doing so we’re conscious that we’re part of a wider global movement of transformational change. Change is occurring all the time; by “*transformational change*” we mean change that is driven by a different underlying paradigm — of what economic activity is all about, of what social wellbeing looks like, and ultimately of what our role as humans is on the Earth. It’s sometimes expressed in the language of “stewardship,” that God put us on the earth not to exercise

dominion over it but to be responsible for taking care of it. There are many other manifestations of it as well, from permaculture to biomimicry, from community self-sufficiency to such ideas as “rewilding” parts of the landscape, and to telling “the new cosmological story.” What distinguishes transformation is that it does not continue to re-fight the old battles, between ethnicities and territorialities, between man and nature, between religion and secularism, but that it transcends them. As Einstein, Thomas Kuhn, and many others have pointed out, by shifting our frame of reference we don’t so much find better answers to the old questions as we start asking new questions.

What allows us to do this, from scientific frameworks to economic principles to spiritual rebirth, are “distinctions,” that is, distinguishing the new from the old in a way that allows us to transform not just the things that we see but the way that we see them. Perhaps the key ecological distinction is that of seeing ourselves as part of nature and not simply as a product of it. It is perhaps surprising that we need to be reminded of it, but we do not and cannot exist apart from nature, and our role in it needs to be guided by our recognition (“re-cognition”) of our place in the universe, as beings that express life’s self-awareness, as the global brain and the global heart and the global urge for life, the expression of its creative and re-creative force.

As Anodea Judith has expressed it in *Global Heart Awakening* (forthcoming):

The cultural transformation from the *love of power* to the *power of love* is the drama of our time. Ours is an era that future historians will look back upon, marveling at the magnitude of the challenges and changes we are now experiencing. They will call it a time of Great Awakening, a time when the best and the worst of humanity played their parts in the fate of human evolution. But if future generations are alive to tell this story, it will only be because the best of humanity prevailed and pulled together with a love so profound that the seemingly impossible was achieved.¹⁸

Part of the “seemingly impossible” is the reconciliation of peoples of differing faiths, political views, and economic interests; the reconciliation of humanity with nature; and the reconciliation of science and spiritual awareness. Right now the world seems bent on self-destruction: nations are in turmoil and conflict, ideologies are gridlocked, and many climate scientists believe that we have now “locked in” greenhouse gas emissions that will lead us well past 2° C to as much as 6° C of global warming, with catastrophic consequences.¹⁹ Yet

¹⁸ Cited in an email from Stephen Dinan of the Shift Network, “Welcome to the Birth of a New Era,” December 22, 2012.

¹⁹ “Recently, reports from the [International Energy Agency](#), the [World Bank Group](#), and the [PWC](#) conclude that a 2-degree temperature increase is highly unrealistic and that at our current rate, we are heading for a 4-6 degrees Celsius increase. No doubt it represents the biggest threat ever to mankind.” Source: <http://www.huffingtonpost.com/erik->

there is also much evidence that “the Great Transition” has begun.²⁰ As Paul Hawken notes,

If you look at the science about what is happening on earth and aren't pessimistic, you don't understand the data. But if you meet the people who are working to restore this earth and the lives of the poor, and you aren't optimistic, you haven't got a pulse.²¹

A major element of this reconciliation is between the ecological imperative to slow our consumption of resources and creation of wastes, and the seemingly unstoppable forces promoting economic growth. Yet as Karl-Henrik Robert has pointed out, unless basic human needs are met worldwide through the fair and efficient use of resources, it's unlikely that we'll ever achieve meaningful reductions in resource extraction, the creation of toxic wastes, and the continued degradation of the environment for economic development.²² Since we are very far from this “system condition,” what we

rasmussen/real-solution-climate-problem_b_2257530.html. See also “Six degrees of devastation,” <http://www.smh.com.au/environment/climate-change/six-degrees-of-devastation-20121207-2b1d5.html>.

²⁰ Amongst many other sources, see

<http://www.sustainia.me>, <http://www.gtinitiative.org/>, <http://www.neweconomics.org/publications/great-transition>, and <http://www.tellus.org/>.

²¹ *Blessed Unrest: How the Largest Social Movement in History Is Restoring Grace, Justice, and Beauty to the World (2008)*.

²² *Natural Step: A Framework (1997)*

need is “sustainable growth,” i.e., economic growth that is based on creating the foundation for life to be self-sustaining and regenerative on an ongoing basis.

Another way of putting this is to note that it's insufficient to treat the symptoms of *unsustainability* — in John Sterman's terms, “policies to reduce waste, cut energy and material use, reduce greenhouse gas emissions, promote green products and local consumption” — on a piecemeal basis, when what we actually need is to change the underlying structure of the system that produces these symptoms in the first place.²³ This is not to say that we shouldn't treat these symptoms at all — on the contrary, the first step toward health is to arrest the damage being caused by the disease — but that we must then move to address the underlying causes.

If the “naïve” narrative is abandoned by governance institutions and decision makers, as it should be, then a stronger, more appealing sustainability narrative must take its place... Developing public understanding of the problems and alternatives is essential. An economy is embedded in a social and political context which, in turn, is embedded in ecosystems upon which all life depends. The

²³ Weinstein et al.: “The global sustainability transition: it is more than changing light bulbs” (*Sustainability: Science, Practice, & Policy*, Winter 2013). Michael Weinstein is founder the Sustainability Science program at Montclair State University.

interests of business, society, and the environment should therefore align at a fundamental level(s).²⁴

The authors conclude:

John Sterman (2002) wrote that “overcoming policy resistance and building a sustainable world requires meaningful systems thinking coupled with community engagement in promoting the common good.” It requires new knowledge gained from use-inspired research (Stokes, 1997; Kates, 2012) and rigorous applications of that research to expose our hidden assumptions and biases. It entails engagement of all scientists to face the ethical issues raised by growth and inequality and to speak out for a just, equitable, and sustainable world (NRC, 2002; Steffen et al. 2011). It obliges us to listen with respect and empathy to others. It compels humility and the courage needed to lead in the face of uncertainty. Sterman (2012) said it so very well: “If we devote ourselves to that work we can move past denial and despair to create the future we truly desire—not just for us, but for our children. Not just for our children, but for all the children.”²⁵

The application of this to reconstruction of the damaged shore communities on the

²⁴ Ibid.

²⁵ Ibid.

Eastern seaboard is especially challenging, as the urgent imperative is to rebuild along the coastline, only stronger; at the same time, however, we need to look at the long term needs of the total ecosystem, including its human populations, in order to restore its inherent regenerative capacities.

Community Reinvestment

Central to all of the areas that need economic transformation is the financing required to mobilize labor, resources, and knowledge. Such financing is, indeed, the quantifiable ability to control and allocate these factors, and we create this investment through a specialized kind of social agreement called “banking.” But what we’re calling for here is not just some token percentage of bank lending to be focused on “community reinvestment;” rather, it’s refocusing certain local banks solely on this objective.

Financial institutions and the mechanisms of money flow are often misunderstood and left out of the equation in discussing public policy, but they are not neutral instruments. As Marjorie Kelly points out in *Owning Our Future: The Emerging Ownership Revolution* (2012), systems do what they are designed to do, and our current patterns of ownership are “extractive” ones that are, intrinsically, the cause of recurrent financial collapse.

The creation of money through debt, hedging, and financial derivatives is *designed* to restrict the availability of money, and typically has the effect of siphoning money from the poor to the rich. It’s not that much different than

the classic American story of the frontier town's greedy banker looking to load up the farm with debt and then foreclose on it; it's just disguised as "financial wizardry" and "credit default swaps"²⁶ and has become a systemic disorder rather than the creation of a few evil individuals. The challenge, then, is to reform the monetary and economic system in order to create the right incentives instead of the wrong ones. This certainly means tax reform — so that we stop taxing what we actually want more of, and *start* taxing what we want less of; but it also means ownership reform, along the lines that Kelly describes, i.e., to put in place the structures of a truly generative economy, and expand our models of currency, value, and reward.

Much of this is beyond the scope of this brief policy assessment, but the key to most of these beneficial changes is what Kelly calls "stakeholder finance." Communities, and the people in them, should employ capital, rather than capital employing them. The "profits" of productive activity need to build up and recirculate within the community if it is to increase its prosperity over time; otherwise, if they are continually being siphoned off, the community will remain poor and eventually become destitute. The community banker uses financing to strengthen and build up the local economy, by investing in ways that return the benefits to those actually creating the wealth — not to those

seeking to appropriate it from them in order to further entrench inequality.

Several new models of community investment are being developed as vehicles to keep the money re-circulating within the community, and distribute the benefits to all of the stakeholders in a way that sustains the long term value of enterprises and communities, and we are working to develop our own.

Practical Steps to Establishing a Foundation for Sustainable Growth

While the extent of the post-Sandy devastation may seem in some places to be overwhelming, there is no doubt that New Jerseyans will and are beginning to rebuild. The question is, will they rebuild better and smarter than before?

Several elements — such as buildings that are better situated, better protected, and better equipped to ride out hurricanes, storm surges, floods, power outages, and so on — are obvious; but others are perhaps less so.

For one thing, a visit to the areas impacted by Sandy reveals immediately that the impact was much greater on lower-income residents, many of whom live in low-lying, flood-prone areas, in homes that are less well-designed and less well built. Consequently we can see the need for

1. Providing appropriate support for low-income communities, which includes strengthening the local economy, as well as
2. Designing and building community infrastructure

²⁶ It's only in the modern era that, largely through a misreading of Adam Smith's "invisible hand" thesis, some people have argued that, in Gordon Gecko's wholly ironic phrase, "greed is good."

- capable of withstanding extreme weather events (the Dutch, for example, have learned how to live with floods and how to manage them)
3. Changing understandings, behaviors, and expectations regarding our interrelationships with the environment (and in some cases with each other)
 4. Supporting innovative solutions to energy, food, shelter, etc. issues so as to foster greater self-sufficiency and self-reliance, with efficient and flexible systems and arrangements to cope with change
 5. Active ecosystem management, creating regenerative, livable environments that are socially and economically self-supporting

All of these are important, and are likely to have growing public support in New Jersey in the days ahead. What is equally important is to think about how all of this will be paid for. Disaster assistance is only likely to cover a portion of the real amounts we need to invest, as a society, in building a more sustainable state.²⁷

Both state and federal treasuries are constrained, so increasingly these investments need to be made by the

²⁷ In many instances, as noted at the Senate Committee hearings on the impacts of Sandy on transportation systems, we simply *can't* replace systems built a hundred years ago, nor, as one witness said, "would we want to." See <http://www.c-span.org/Events/Senate-Cmte-Looks-at-Hurricane-Damage-to-Transportation-Systems/10737436361/>. As noted at this hearing, the ROI on preventive investment is typically five to one.

private sector; and they will be, if the returns are attractive and are, at least to some extent, guaranteed. This is why programs such as PACE are so appealing to funders; and why special-purpose "revenue bonds," tied to known revenue streams, are preferable to general-obligation bonds wherever possible.²⁸

Even in the case of public-sector (i.e., state or municipal) projects, these are ultimately funded by private investors, who expect to earn a return. These projects will also spur significant local economic development, and provide private-sector revenues. The question is whether at least some of the investment required can also be sourced locally, thus keeping the resources circulating within the community. Providing vehicles for such local investment — including both public, private, and nonprofit financial institutions — also known as "stakeholder finance," is one of the keys to sustainable economic revitalization.²⁹

Providing better access to information, more straightforward project approvals, and easier access to funding are foundational elements for a more sustainable economy. So are policies that are consistent with the larger vision, so that economic actors have a shared belief and expectation that moves in this direction will be

²⁸ Such programs effectively use public authority to guarantee stated returns to private investors.

²⁹ Experts estimate that some portion of the over \$40 trillion in mutual funds and IRAs held by the middle class could potentially be redirected in these ways, increasing local property values and strengthening local communities.

supported and reinforced by the actions of others. Just as venture investors have shifted a significant portion of their focus over the past few years into cleantech, anticipating the growth of an emerging commercial and industrial sector, so municipal officials, financing professionals, and others will move in a direction that has the support of legislators and of the state government.

Our Initiatives

The **Center for Regenerative Community Solutions** is engaged in several initiatives directly relevant to the challenges described in this paper, including:

- **A Sustainable Shore Community Dialog Series**, designed to assist communities in planning for a more resilient and self-sufficient future.
- The **NJ PACE Program**, a state-wide, standardized approach to approving, financing, and implementing Property-Assessed Clean Energy projects in NJ
- **Community Energy Aggregation**: through our association with another NJ nonprofit, Cooling America thru Local Leadership (CALL), we are implementing energy aggregation programs in several NJ communities
- **Sustainable Leadership Forum**, and Sustainable Leadership Network, peer leadership organizations that support community organizers, activists, and professionals
- **ConservationTechnologies.net**, a user-friendly portal to

solutions available in NJ today, including PACE, Energy Aggregation, Renewables, and other opportunities from a variety of providers and programs.

- **Regenerative Community Ventures, Inc.** a for-profit community development company using a model devised and supported nationwide by **Unified Field Corporation**, that channels local investment dollars into profitable projects that strengthen local economies.³⁰

Integration with Existing Initiatives and Sandy Relief Efforts

One of our immediate goals is to integrate our work in these areas with the massive Sandy relief and reconstruction efforts being contemplated by local, state, and federal authorities.³¹ As organizations, we are always looking for ways to support the holistic mission of community revitalization, resilience, and sustainability on an ongoing basis. We believe that each of these initiatives is capable of being economically profitable

³⁰ While we have primarily highlighted our own initiatives, there are many others from similar groups across the state that could just as readily be cited, which we also intend to support.

³¹ A number of these were discussed at the “Rebuilding a Resilient New Jersey Shore” conference at Monmouth University, December 8, 2012. Specifically, Ed Blakely, former director of the Office of Recovery and Development in New Orleans, said NJ should resist the temptation to repair and be sure to “build smarter,” and added, “This is a decade long process. This is not going to be done next year or the year after.” See http://www.nj.com/news/index.ssf/2012/12/recover_official_warns_nj_agai.html.

under the right circumstances. This is one of the essential conditions of being socially and ecologically profitable as well.

Through **NJ PACE**, we are looking to establish a statewide project financing program that is vendor and technology agnostic, while providing maximum security to investors' money. The program will simplify and facilitate the process of identifying, qualifying, financing, and evaluating energy conservation and clean energy projects, initially for commercial property-owners and eventually perhaps for residential properties as well. The program will accelerate job creation, asset improvement, carbon reduction, and private investment, at no cost to municipal governments.³²

We believe this program, if successful, will more than pay for itself; but it does require an investment of time, energy, and money to establish, which, in concert with others, we are prepared to make. We welcome suggestions, inquiries, and contributions of any kind to this process.

Through **www.ConservationTechnologies.net**, we propose to feature and inform people of alternative sustainable solutions in their neighborhoods and communities. We are looking to sponsors, municipalities, and others to support this portal. By aggregating information, opportunities, contacts, and service providers in a growing

range of conservation and clean energy initiatives, we are serving a broader spectrum than any one program, while focusing on the local level to bring about practical and sustainable change.

Through **Regenerative Community Ventures, Inc.** we are looking to develop local sustainable infrastructure projects that strengthen the capacity of the community to generate its own wealth, ecological integrity, and sustainable and regenerative design.

³² For more information on PACE, which provides municipally-backed financing for energy upgrades to private properties, see www.NJPACE.net.

Conclusions and Recommendations

Many of these initiatives depend on existing state legislation, municipal authority, and public support, for which we are extremely appreciative. At the same time, it is clear that the amount and type of support that is available from the state in particular is still largely insufficient to the challenge, and in some cases poorly handled. Frequent changes in policies and programs have abandoned the Regional Greenhouse Gas Initiative, raided clean energy funding, and repeatedly disrupted the nascent energy conservation and clean energy industries, failing to promote widespread adoption, and largely ignoring the importance of innovation and entrepreneurship, relying instead on industry-dominating corporations to manage its programs. The result has been higher than necessary administrative costs, along with the failure to ensure a level playing field, or of measuring progress in a fair and objective manner.

For these and other reasons, ***we are advocating strong support for scaling up PACE funding, approving municipal participation, encouraging the use of Qualified Energy Conservation Bonds and other financing mechanisms, and leaving administration in the hands of the private and nonprofit sectors.***

*We are also advocating for strengthening municipal involvement in energy conservation and distributed clean energy generation, e.g., by incentivizing aggregation programs, shifting greater resources to the local level and emphasizing large numbers of smaller projects (vs. focusing only on massive projects such as offshore wind). Experience in other states suggests that **municipal involvement stimulates business and civic engagement and improves long-term outcomes.***

*We are also advocating for **active ecosystem management**, as opposed to either neglect or exploitation, so as to regenerate the natural environment, reduce our carbon footprint, and transition our communities to a more sustainable way of life.*

Finally, ***we are looking for both official recognition and financial support for a wider range of community-based organizations, including ours, to bring greater innovation and imagination to this sector.*** If you are able to provide this, or partner with us to obtain these resources, please contact: **Jonathan Cloud** at jcloud@crsolutions.org or 908-581-8418.

