

**“The Green Detox” Union-Cooperative:  
Rehiring Locally to Reenergize, Rebuild, and Re-green  
Local Toxic Commercial & Residential Real Estate Assets  
Throughout selected Metropolitan Regions**

-Michael Peck-  
December, 2011

“We have always known that heedless self-interest was bad morals,” said Franklin Delano Roosevelt in 1937. “We know now that it is bad economics.”

**Better Building Initiative – (Sourced from the Blue Green Alliance)**

Private sector leaders and former President Bill Clinton joined President Obama to announce \$4 billion in funding to make public and private buildings more energy efficient. This announcement is part of a larger effort to increase the efficiency of commercial buildings by 20 percent by 2020 called the Better Buildings Initiative. Best of all, the program pays for itself via energy savings.

- **The Better Buildings Initiative will reduce energy bills, create jobs.** Introduced by President Obama on February 3, 2011, “the Better Buildings Initiative set a national target of improving energy efficiency in commercial buildings by 20 percent by 2020. Achieving the President’s goal will reduce energy bills for American businesses by approximately \$40 billion per year” and has the potential to create 114,000 jobs. [[The White House, 12/1/11](#)]
- **Building efficiency pays for itself.** President Obama has signed a Presidential Memorandum that “directs Federal agencies to enter into a minimum of \$2 billion in performance-based contracts over the next 2 years” to conduct energy retrofits on Federal buildings. “Performance-based contracting is an innovative approach to financing building upgrade projects that uses long-term energy savings to pay for up-front costs, resulting in no cost to taxpayers.” [[The White House, 12/1/11](#)]
- **Labor, business, government, and educational institutions have rallied behind the Better Buildings Initiative.** Nearly \$2 billion in private sector investments were announced on December 2, 2011 that will be used to upgrade the energy efficiency of “approximately 1.6 billion square feet of commercial and industrial property.” [[The White House, 12/1/11](#)]

**The Green Detox Challenge:**

- On Labor: there will be no real labor mobility in America until homeowners holding underwater mortgages are bailed out similar to how the bankers were saved from themselves through TARP. All of the present programs are not sufficient and are wasting time. Right now, workers cannot afford to sell to move to where the jobs are.
  - Millions of Americans have lost their homes since the start of the Great Recession. By the middle of 2010, 4.6 percent of U.S. home mortgages were in foreclosure, three times the rate seen at the height of the Great Depression. U.S. home values have fallen [an astounding 6.3 trillion dollars](#) since the housing crisis first began. 28.4% of all single-family homes with a mortgage in the United States are now underwater; more than 55% of all single-family homes with a mortgage in Atlanta have negative equity. Home prices have sunk to 2002 levels, effectively wiping out almost a decade’s worth of home equity. Many households can’t move because they owe more than their homes are worth. Even households that aren’t underwater have seen such a big loss of wealth that they may be unwilling to sell at current prices. Instead, there is a national scam aided and abetted by Fannie Mae and GMAC where foreclosures are promoted as the first and best solution to result in many of those homes being sold at discounts to investors that are willing to make all-cash bids, which can then reduce the appraised value of all homes in that neighborhood.

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- These losses represents the net effect of financial and societal crimes committed by ex-territorial (to hard-hit housing markets) individuals and institutions firing “financial weapons of mass destruction” at America’s economy resulting in an unprecedented and unpredictable market upheaval with Wall Street winners and Main Street losers. In short, we are witness to numerous housing victims in an America where one in four homeowners are currently under water, where now 13.3 million U.S. mortgage borrowers owe almost as much as or more than their homes are worth (Core-Logic).
- On Energy: the comprehensive U.S. energy bill is expected to grow from \$1.2 trillion today to \$4.1 trillion by 2050 while the U.S. energy efficiency market across all economic sectors is estimated at upwards of \$45 billion with the home energy efficiency renovations market alone pegged at circa \$25 billion. There are almost 130 million U.S. homes generating more than 20 percent of our nation's carbon dioxide emissions. Existing home energy retrofit techniques and technologies can reduce home energy use by up to 40 percent per home and lower associated greenhouse gas emissions by up to 160 million metric tons annually by 2020. Home energy efficiency retrofits have the potential to reduce home energy bills by \$21 billion annually.

**These are big numbers and represent a viable potential market that cries out for a municipal union-cooperative approach (based on the USW-Mondragon model) to optimize maximum, local hiring to ensure good and green jobs, and local profit repatriation, reinvesting, and recycling.** These numbers represent a major opportunity in both Commercial and Residential real estate for newly “re-energized” municipalities as well as their industrial and financial institutional supporters to “take back their cities” and “do well by doing good” by forming a local **Green Detox union-cooperative** deploying. Given existing legal challenges and new developments, commercial real estate retrofitting may be easier to start with than residential real estate using the **Green Detox Union Cooperative** approach as outlined in this memorandum but both approaches are possible.

### **Creative, Out Of the Box, “Green Detox” Economic Redevelopment**

- In the emerging smart “Inter-Grid” market, vacant, underutilized, non-performing real estate assets no longer need to wait for tenants in order to be productive. Instead, they can be greened-up and produce revenue through a comprehensive local alternative energy and energy efficiency combination that sends power to the grid in return for a monetary payment.
  - This payment can then be used to pay for the studies, labor, technologies, materials, and benchmarking used to “detox” these non-performing real estate assets with profits minus repayments going towards a fund that permits building-by-building replication
  - Commercial and Residential Tenants will have more reasons to participate in carbon-free, green energy enhanced, detoxed real estate communities, whether residential or commercial, thus completing the final leg of this self-fulfilling virtuous cycle.
  - The toxic assets themselves are taken upstream through the green value chain and worth more at resale while lowering society’s carbon footprint.
  - Some part of projected investor profit returns on resale – also refunds the greening cost at time of sale.
- We can’t allow the U.S. public to foot the same bill three times, once during the initial real estate subprime and Wall Street-induced property values implosion, second during the buy-back process with pennies on the dollar after an artificially created market plunge, and third during the sell-off of foreclosed assets where most homeowners who lost their equity and possible their homes won’t get to participate in the upside

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- “Green Detox” represents a “Fairness Triple Bottomline” approach:
  - fair to homeowners who play by the rules
  - fair to local green job workers
  - fair to the U.S. Government shareholder
  - fair to society’s carbon footprint
  - helps to solve the problem of how to place a value on mortgage-related assets that have not been traded for months by upgrading the assets (making them greener).
  - helps to solve the problem of how to bridge the divide between what the banks want to sell the assets for and what investors are willing to pay for them by making these assets more valuable (the government intends that the subsidies it provides to investors are so rich that investors will be willing to risk overpaying somewhat for the assets – this is how investors recoup their down-payments).

### **Commercial Green Detox Spelled Out:**

1. There is a new financing approach called “Property Assessed Clean Energy”, or PACE that is starting to attract national attention. For decades, cities and counties have created special taxing districts to finance improvements that benefit private property, such as street lights or sewers. Bonds are issued to pay for the projects, and then repaid with surcharges on tax bills. If an owner sells, the surcharge stays with the property.
2. Several years ago, the city of Berkeley, Calif., hit on the idea of using that approach to finance energy upgrades on private homes. The idea took off, and 25 states and the District of Columbia soon passed PACE legislation. One of the most successful programs to date has been in Sonoma County, Calif., where retrofit projects exceeding \$50 million have been financed.
3. While the initial focus was on homeowners, those programs slowed last year when an arm of the federal government that oversees the mortgage market took a hostile stance toward such projects on residential property, on the grounds that they add risk to mortgages. In most states, a lien associated with a retrofit project would have to be paid ahead of the mortgage if the property went into foreclosure.
4. A legal and political battle is under way to try to force the Federal Housing Finance Agency to reverse its stand. So far, it appears that PACE programs for commercial properties pose fewer legal complications.
5. The [New York Times](#) (this article is restated in full in this concept paper) reported recently on a business consortium pushing Property Assessed Clean Energy (PACE) programs – a tax arrangement that allows property owners to upgrade their buildings at no upfront cost to cut energy use – across the nation.
6. A business consortium includes [Lockheed Martin](#) and [Barclays](#) bank and plans to invest as much as \$650 million over the next few years to slash the energy consumption of commercial real estate buildings in the Miami and Sacramento areas. It is the most ambitious effort yet to jump-start a national market for energy upgrades that many people believe could eventually be worth billions.
7. Focusing mainly on commercial property at first, the group plans to exploit a new tax arrangement that allows property owners to upgrade their buildings at no upfront cost, typically cutting their energy use and their utility bills by a third. **The building owners would pay for the upgrades over five to 20 years through surcharges on their property-tax bills, but that would be less than the savings.**
8. The consortium is led by a company called [Ygrene Energy Fund](#) of Santa Rosa, Calif., which has already won an exclusive contract to manage a retrofit program for a half-dozen communities in the Miami area, with the city expected to join in a few weeks. It is in the late stages of completing a contract with Sacramento, and is seeking deals in other cities.

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9. State and city officials across the nation are optimistic they may have found a way to tackle one of the nation's biggest energy problems — waste in older buildings — without new money from Washington. If enough building owners sign on, private capital would be put to work paying for retrofit projects that promise to save local businesses money while creating thousands of new construction jobs.
10. In the past three years, half the states have passed legislation permitting energy retrofits financed by property-tax surcharges, and hundreds of cities and counties are considering such programs. While the situation poses some risks, and programs aimed specifically at homeowners have run into a snag, many jurisdictions are moving forward with plans to focus on commercial properties.
11. Environmental groups have lauded the trend as one of the most exciting developments in years regarding [climate change](#). They point out that wide use of such programs could cut emissions of heat-trapping carbon dioxide from power plants by reducing electricity demand.
12. While that may take a while, there seems to be little question that the new approach could draw substantial private capital into the market for energy upgrades, which have historically been difficult for many midsize and smaller businesses to finance.
13. As envisioned for Miami and Sacramento, the plans will work like this:
  - Ygrene and its partners will gain exclusive rights for five years to offer this type of energy upgrade to businesses in a particular community. They will market the plan aggressively, helping property owners figure out what kinds of upgrades make sense for them. [Lockheed Martin](#) is expected to do the engineering work on many larger projects.
  - The retrofits might include new windows and doors, insulation, and more efficient lights and mechanical systems. In some cases, solar panels or other renewable power might be included. For factories, the retrofits might include new motors or other gear.
  - Short-term loans provided by Barclays Capital will be used to pay for the upgrades. Contractors will offer a warranty that the utility savings they have promised will actually materialize, and an insurance underwriter, [Energi](#), of Peabody, Mass., will back up that warranty. Those insurance contracts, in turn, will be backed by [Hannover Re](#), one of the world's largest reinsurance companies.
  - As projects are completed, the upgrade loans, typically carrying interest rates of 7 percent, will be bundled into long-term bonds resembling those routinely issued by governmental taxing districts. Barclays will market the bonds. Retirement funds have expressed interest in buying these bonds, which will be repaid by tax surcharges on each property that undergoes a retrofit.
14. Ygrene is one of about a dozen start-up companies around the country pursuing such deals. The company appears to have substantial momentum, but some of its competitors have already stumbled, telling property owners they qualified for retrofits but then failing to deliver the necessary short-term financing.
15. **Experts point out that, with modern techniques and equipment, a retrofit can typically cut a building's energy use so much that the project pays for itself in as little as five years.** The most famous recent example was the [refurbishment](#) of the Empire State Building, which cut energy use by nearly 40 percent, turning it into one of New York's greenest buildings.
16. **The Municipal Union-Cooperative Green Detox approach would replace outside companies like Ygrene with a local union-cooperative through an exclusive metropolitan charter dedicated to performing the same exact retrofitting analysis and delivery services, partnering with a locally formed banking and insurance consortium to provide all of the financial back-up required to**
  - **Market and execute a metropolitan energy retrofit plan aggressively by helping property owners figure out what kinds of upgrades make sense for them and completing the engineering work on many larger projects;**

- **The retrofits might include new windows and doors, insulation, and more efficient lights and mechanical systems. In some cases, solar panels or other renewable power might be included. For factories, the retrofits might include new motors or other gear.**
  - **Provide short-term loans used to pay for the upgrades. The Green Detox union-cooperative will offer a warranty that the utility savings they have promised will actually materialize, and an insurance underwriter, will back up that warranty. Those insurance contracts, in turn, will be backed by a reinsurance company.**
- 17. As projects are completed, the upgrade loans, typically carrying interest rates of 7 percent, will be bundled into long-term bonds resembling those routinely issued by governmental taxing districts. A local financial institution will market the bonds to retirement funds that have expressed interest in buying these bonds, which will be repaid by tax surcharges on each property that undergoes a retrofit.**
- This way, all labor is local and union, all profits are locally generated and repatriated locally, and participating metropolitan region gain maximum advantage from green-detoxing the physical deconstruction that others with outside interests have brought about (outsourcing, foreclosing, offshoring). To do anything else would constitute a classic sense of double jeopardy: first suffering the crime committed by others, then paying others to fix it.

#### **Union-Cooperative Residential Green Detox:**

- Currently, there's a three-year inventory of homes in foreclosure for sale, and that's devastating home prices. These [homes are selling at steep discounts](#), especially so-called REOs, bank-owned homes that have been taken in foreclosure procedures. The average REO cost on average about 35% less than comparable properties. Now, the nation's biggest banks and mortgage lenders have steadily amassed real estate empires, acquiring a glut of foreclosed homes that threatens to deepen the housing slump, create a further drag on the economic recovery, and end U.S. labor mobility as we know it.
- All told, these bailed-out vulture landlords own more than 872,000 homes as a result of the groundswell in foreclosures, almost twice as many as when the financial crisis began in 2007, according to RealtyTrac, a real estate data provider. In addition, they are in the process of foreclosing on an additional one million homes and are poised to take possession of several million more in the years ahead. This pileup could lead to \$40 billion in additional losses for banks and other lenders as they sell houses at steep discounts over the next two years, according to Trepp, a real estate research firm.
- Clearing foreclosed homes, known as "real estate owned," or "REO" housing in real estate parlance, from the books of private and public institutions is one key to a long-term housing recovery. Currently, the Federal Housing Administration, Fannie Mae, and Freddie Mac are still taking on record numbers of REO. Estimates of private-lender REO put the so-called "shadow inventory"—vacant housing not currently for sale on the market—at 1.5 years by itself. Even optimistic estimates assuming REO comprise 30 percent of all home sales going forward suggest that clearing the shadow inventory will take more than five years, with sluggish home values and negative community impacts persisting through the period.

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- The traditional approach to REO is to sell off the houses one at a time in their current condition. But in today's market, there are not enough potential homeowners. When REO properties are auctioned off in bulk, the buyers are nearly always investors with a short investment horizon. To the extent these investors make repairs to the property to improve the chances of sale and increase their returns, the repairs are often largely cosmetic and can saddle unwary buyers with significant maintenance costs. Indeed, these kinds of investors have little regard for the long-term habitability of the homes they bought and sold and often do not hire local union labor. Profits are recycled to out-of-state corporate headquarters.
- On the other hand, if federal and state governments do not accelerate creative intervention, over 11 million mortgage holders are in danger of losing their homes. That's one in five people with a mortgage. Such financial intervention is increasingly difficult for states stuck with intractable budgetary crises. A majority of Americans now say they are worried about making their mortgage or rent payments, underscoring the extent of economic anxiety in the country. The foreclosure crisis isn't just about lost or mishandled foreclosure documents. It's about trust— a clash over who gets stuck with \$1.1 trillion in losses – and how we transform residential and commercial toxic assets into resources that work for working class Americans within the context of hosting communities.
- Wall Street's unspoken strategy has been to kick the mortgage losses can down the road until an economic recovery re-inflates the housing market, something that doesn't look probable within the next decade. The players—all of whom are trying to minimize their share of the damage—include homeowners, lenders and mortgage brokers, loan servicers and the underwriters of mortgage-backed securities, the buyers of those securities, title insurers, rating firms, and the federally controlled mortgage buyers Fannie Mae and Freddie Mac. The latter two are petitioning for increased bail-outs and most likely will undergo reorganization by a skeptical and hostile U.S. congress.
- Despite the constant flurry of more intelligent ideas perennially over the horizon, the U.S. Treasury's toxic asset program has failed the common homeowner, has been scaled down, and now does not currently address toxic commercial and retail real estate. In addition to securities that are derived from troubled loans, there are trillions of dollars in distressed residential and commercial mortgages on the balance sheets of banks. So far, banks have been unwilling to engage homeowners in order to eliminate the incentive to walk away from a home. Banks need to reduce the principal burdening homeowners. The on-going game of chicken played between “underwater” homeowners and lending institutions has delayed the housing market recovery with expensive and destructive results for American communities.
- Key reasons why banks to date are missing in action:
  - Banks don't want to sell at fire-sale prices;
  - Banks think they can grow themselves out of the mess they're in;
  - The Federal Government has changed the rules too many times and banks don't want to deal with more uncertainty;
  - Banks don't want the stigma of participating in government programs as envisioned to date by Treasury;
  - Banks feel the final conditions may be too onerous;
  - Banks continue to hold bad loan portfolios which inhibits them from making new loans and this impacts struggling state economies like the Cincinnati toxic real estate epicenter;

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- Once again, cities, regions, and states have to “save themselves” but in a manner that builds a virtuous cycle of jobs and wealth creation that, in turn, positively impact our climate.
- An alternative approach to clearing portions of this inventory would be to convert REO housing into a green and clean portfolio of tenanted, single-family rental properties for sale to private investor groups. With effective government control of such large portfolios of REO housing at one time, the market is at a unique moment when larger portfolios of geographically concentrated properties can be assembled creating efficiency and market value. Many of these properties will require some renovation to make them marketable, creating an important opportunity to engender local employment by carrying out energy efficiency retrofits, with cost savings recouped within an estimated three years of operation, making them more attractive to investors. Finally, the properties could be transferred to management entities for rental purposes, with stakes sold to private investors. Properties participating in these programs could be eligible for affordable housing subsidies or other incentive programs as well.
- This transformation would create new, high-quality affordable rental housing at a time when more and more people are looking for good rental options. What’s more, significant numbers of jobs would be created in the rehabilitation, energy efficient retrofit, and management of these properties.
- Now, even more millions of Americans urgently need good and green jobs with wages and salaries that can support their basic needs and those of their families which can be created by greening-up America’s toxic real estate, saving our planet by lowering our national carbon footprint, creating higher quality local low-income housing, and achieving affordable, home-grown energy. Green Detox creates a unique & natural path for municipalities to serve as models for transforming “toxic real estate” into a metrics-driven platform to create green and good jobs.

**Forming a Residential Real Estate “Green Detox” Union-Cooperative:**

1. There is a new financing approach called “Property Assessed Clean Energy”, or PACE that is starting to attract national attention. For decades, cities and counties have created special taxing districts to finance improvements that benefit private property, such as street lights or sewers. Bonds are issued to pay for the projects, and then repaid with surcharges on tax bills. If an owner sells, the surcharge stays with the property.
2. Several years ago, the city of Berkeley, Calif., hit on the idea of using that approach to finance energy upgrades on private homes. The idea took off, and 25 states and the District of Columbia soon passed PACE legislation. One of the most successful programs to date has been in Sonoma County, Calif., where retrofit projects exceeding \$50 million have been financed.
3. While the initial focus was on homeowners, those programs slowed last year when an arm of the federal government that oversees the mortgage market took a hostile stance toward such projects on residential property, on the grounds that they add risk to mortgages. In most states, a lien associated with a retrofit project would have to be paid ahead of the mortgage if the property went into foreclosure.
4. A legal and political battle is under way to try to force the Federal Housing Finance Agency to reverse its stand.
5. To get ahead of this current legal impasse, and while this is being resolved, municipalities could design and organize a new form of a “virtuous cycle” union cooperative enterprise (based on the USW-Mondragon model, an approach already underway in Pittsburgh):

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- a. **The Union-Coop Worker Equity Model:**
- i. Cooperatives represent the largest, untapped, bipartisan, “made in America” ownership community.
  - ii. The United Steelworkers Union (USW) launched this concept with Mondragon in October, 2009, and last August (2011) voted during their Constitutional Convention to make it part of their constitution.
  - iii. The success of the Mondragon cooperatives comes from putting people first by prioritizing employment before profits and giving back to one’s community and society. The principle of social transformation means that a key part of the Mondragon cooperative mission is to support and invest in hosting communities by creating jobs, funding development projects, supporting education, and providing social opportunity. Host communities, in turn, support the cooperatives, creating virtuous cycles where self-interest becomes shared enlightened and mutual interest. This proposal marks the first step in the process of taking this model to scale.
  - iv. The Green Detox union-coop model represents a “Made it Local” hybrid: a union coop is a unionized worker-owned cooperative in which worker-owners all own an equal share of the business and have an equal vote in overseeing the business.
  - v. Traditionally in larger scale worker-owned cooperatives, worker-owners elect a Board of Directors from among themselves and the Board appoints people to manage the day-to-day operations of the cooperative. Although it’s common within co-ops to elect people to look out for the interests, on a day-to-day basis, of the worker-owners as owners; it’s less common within coops to elect people to look out for the interests, on a day-to-day basis, of worker-owners as workers.
  - vi. As historically proven, worker-owned cooperative businesses can be highly competitive with businesses using a more traditional corporate structure. Where ownership means more than just a value of a share, worker-owners tend to be more self-motivated, more productive, and more creative in ways to help their business thrive and grow.
6. The municipality would form a local residential real estate Green Detox Partnership to green-up metropolitan area residential toxic real estate assets through the newly formed Cincinnati Green Detox Union-Cooperative under established building codes on behalf of in-state retail and commercial mortgage asset holders providing more green and good jobs for local workers embedded in the greening process.
  7. This local Green Detox Partnership would establish metrics and alliances for in-state training and technology infusion, develop marginal rates of return profiles for conversion of toxic real estate assets to the most locally profitable LEEDS level, and measurement of green jobs employment over time.
  8. Once these toxic retail and commercial mortgage assets are greened-up by the municipal Green Detox Union-Cooperative to the highest possible and useful LEEDS level, then they are offered for resale by city and/or state and/or federal mandate to participating investor partnerships through the revolving Green Detox Fund.
  9. The toxic assets themselves are taken upstream through the green value chain and worth more at resale while lowering society’s carbon footprint.
  10. The profits from these upstream values, after resale, will produce profitable returns to the municipal Green DeTox fund which will then reinvest to provide continuous employment streams to the local Green Detox Union-Cooperative.
  11. Investor partnerships buying Green DeTox properties will receive higher value properties for their investments.

12. The local Green Detox Fund will help to solve the problem of how to place a value on mortgage-related assets that have not been traded for months by upgrading the assets (making them more green) and creating green and good jobs in the process.
13. This municipal “Green Detox” formula will help to solve the problem of how to bridge the divide between what the banks want to sell the assets for and what investors are willing to pay for them by making these assets more valuable (the government intends that the subsidies it provides to investors are rich enough that investors will be willing to risk overpaying somewhat for the assets – this is how investors recoup their down-payments), and creating good and green jobs in the process.
14. The entire process should be benchmarked to provide a national model based on transparent and useful metrics.
15. The Green Detox “virtuous cycle”: in addition to the benefits of reduced energy consumption and a cleaner environment, the Green DeTox project will deliver other significant and tangible benefits:
16. The project will encourage the participation of technology vendors, certified to support the program’s objectives, who will make additional investments in the municipal area.
17. Both traditional and alternative energy companies would be encouraged to participate, further driving investment.
18. Locally-based financial institutions could participate in the funding of both the development and the deployment of the program, encouraged by the participating City and State.
19. Green Detox will not favor the larger financial players when there are ample reasons to put the medium and smaller sized players forward instead. The Green Detox approach would favor policies that promote regional and community banks, since they are closer to borrowers and have some (in many cases, a lot) of the apparatus in place to make old-fashioned lending decisions, rather than rely on FICO and simple score based methodologies that have proven to be hopelessly flawed.
20. K-12 schools, vocational institutions and community colleges will be included to develop and deliver training to local citizens. These training-certified citizens would work with certified installation companies in the assessment and deployment activities.
21. The concentration of activities in sustainability would likely encourage further product development, resulting in the continuing growth of this new economic sector (green rehabbing of toxic real estate).
22. **Suggested Local Green Detox Union-Cooperative Next Steps:**
  - a. Form the local Green Detox Union-Cooperative.
  - b. Develop key information-sharing alliances to produce desired targeted toxic real estate metrics.
  - c. Identify all qualifying in-state retail and commercial assets to reduce energy consumption and carbon footprint in the local metropolitan area with special attention to inner-city neighborhoods, focused on both residential structures and commercial enterprises.
  - d. Identify the training and alliances (all possible union-coop outreach) required to produce a highly qualified energy efficiency and green rehabbing workforce.
  - e. Conduct a baseline performance audit and assessment of all residential and commercial properties in metropolitan area under focus. Using the data gathered in this baseline, analyze various scenarios to reduce energy consumption and improve the environment, in a partnership between local citizens, independent vendors and specialized business partners.
  - f. Develop a detailed and comprehensive facility/building scoring system to supersede and improve on the existing but largely ineffective facility rating system. This new building scoring system would assist all stakeholders, including buyers, sellers, and lending institutions, in the evaluation of existing properties prior to consummating relevant transactions.

- Design and build a comprehensive database to capture, analyze and report building metrics that are appropriate to the use, conservation and impact of energy consumption. Many subsystems, including a variety of data monitoring and capture approaches, can be taken from existing sources and expert work in this area. New forms of training curricula and continuous technology refreshment will need to be developed as new applications come on line. This could entail the use of the latest mobile computing equipment and applications; “smart” metering and other monitoring devices; “field” service and scoring devices; and other tools to proactively initiate and capture data, supported by an appropriate wireless and cloud-computing infrastructure.
- Set aside public local Cooperative Development Funds, perhaps through a municipal bond issue, to begin the “green detoxing” of identified in-state residential real estate assets.
  1. Required: a good securities lawyer and progressive investment banker since Hedge Funds might want to participate in Green DeTox operations where participation must be on an “enlightened self-interest” basis only
    1. **key will be how to manipulate illiquid securities over time**
- Establish a mechanism to publish Green Detox Fund & Cooperative success metrics.

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Michael Alden Peck founded MAPA Group in 1994 as a “doing well by doing good” transaction-driven, business development consulting practice mostly in the green economy sector. Michael’s current advocacy board affiliations include the Blue-Green Apollo Alliance, Penn State University’s Center for Sustainability, the American Sustainable Business Council, and the Wind Energy Foundation. For well over a decade, Michael has served as the North American delegate for Mondragon, the world’s largest industrial worker cooperative. Michael was instrumental in bringing the leading Spanish wind turbine manufacturer, Gamesa, to Pennsylvania in 2004 which has invested over \$220 million in two factories, created 1000 in-state good and green jobs, won the Eleanor Roosevelt award for industry-labor relations, and named a “model U.S. green economy company”. In October 2009, Michael participated in forming the Mondragon and United Steelworkers Union (USW) partnership to create union-coop hybrids with the goal of revamping U.S. manufacturing through worker empowerment and ownership. Michael is part of teams seeking to advance innovative progressive stakeholder economy models such as the Turning Point Solar project that will place the nation’s largest PV project on reclaimed mine lands in rural Appalachia and create a new local solar manufacturing factory in NW Ohio. In July, 2011, Isofoton, Spain’s largest photovoltaic manufacturer named Michael as Chairman of Isofoton North America. Previously, Michael served as a naval officer on active duty from 1976 –83, winning the Commander, U.S. Naval Forces Europe Leadership award in 1981, and completing his service as a Commander in the Naval Reserves in 1996. Michael also served as a defense and economic development assistant to the U.S. Senate Minority Leader (1984-86), as executive assistant to the President of the BDM Corporation (1986-88), and as a senior vice president for corporate business development at SAIC (1988-94), the nation’s largest employee-owned R&D company at the time. Michael is the author of the “One worker, one vote” blog which can be found at ([www.mapagroup.net](http://www.mapagroup.net)).

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