Helping Local Governments Design Financing Programs for Residential Wind Mitigation and Home Hardening Projects

a Final Report to the

Residential Construction Mitigation Program

from the

Florida Catastrophic Storm Risk Management Center
The Florida State University

Abstract: This project built upon prior research completed in 2010 by the Storm Risk Center for the RCMP program that identified, defined, evaluated, and reported on new finance concepts for encouraging windstorm mitigation. The concepts can be used to create local finance programs that encourage homeowners to mitigate their homes against windstorm by making the costs do so more affordable. This project reached local governments with the information and tools they need to plan and create their own finance programs for wind mitigation.

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Table of Contents

Executive Summary

Despite the public good that mitigation provides, it still is difficult to persuade many Florida homeowners to invest in home improvements that increase the protection against damage from disasters. This home mitigation challenge exists for several reasons, of which the most difficult to fix is the perceived lack of affordability.[1] The windstorm mitigation need met by the proposed project is to work with localities to improve affordability of home hardening for residential property owners in their respective communities.[2]

This project built upon a RCMP-funded project completed by The Florida Catastrophic Storm Risk Management Center (Storm Risk Center) on June 30, 2010, which found that both homeowners and municipal administrators, including emergency management directors, perceive the need for innovative ways to finance residential home-hardening projects.[3] As we were concluding that project, the State of Florida passed legislation (Section 163.08, F.S.) making available to local municipalities and residential homeowners one of the most promising finance tools we explored – the creation of special financing districts for energy **and wind damage resistance improvements** to real property. The Property Assessed Clean Energy Program (PACE) would allow for loans to homeowners who choose to harden their homes that they would then pay back through a non-ad valorem assessment on their property tax bills.[4]

Temporary adverse developments in the mortgage market have delayed implementation of the PACE program in Florida and elsewhere.[5] While these issues are being resolved at the Federal level, whether through legislation or judicial means, it is critical that the Florida municipalities

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[1] Kunreuther and Kleffner (1992); Kunreuther (2006).

[2] The State of Florida has repeatedly demonstrated, by statute and action, its commitment to promoting home mitigation by improving affordability for property owners:
1). Section 215.559, F.S., creating the Hurricane Loss Mitigation Program.
2). Section 215.5586, F.S., creating the Florida Comprehensive Hurricane Damage Mitigation Program.

[3] Florida Catastrophic Storm Risk Management Center (2010).

[4] Florida Catastrophic Storm Risk Management Center (2010). Section 163.08, F.S., creating the Property Assessed Clean Energy program (PACE),
which specifically includes certain windstorm mitigation measures including:
1. Improving the strength of the roof deck attachment;
2. Creating a secondary water barrier to prevent water intrusion;
3. Installing wind-resistant shingles;
4. Installing gable-end bracing;
5. Reinforcing roof-to-wall connections;
6. Installing storm shutters; and
7. Installing opening protections.

Homeowners would pay back these loans through a non-ad valorem assessment on their property tax bills.

[5] During May 2010, Fannie Mae and Freddie Mac sent letters to lenders, reminding them that their agreements do not allow them to purchase loans that have a senior lien. These letters imply that borrowers with a PACE (or similar) tax lien will not be allowed to refinance or sell their properties unless the liens are paid off.

that have expressed a desire to participate in the PACE program not be discouraged. More than ever, local governments need ideas for how to structure financing and/or other mitigation incentivizing strategies for property owners in their communities.

We collaborated with interested local governments to assist in the consideration of a local mitigation financing strategy, performing the following activities:

1. PowerPoint formatted presentation of mitigation financing strategies;
2. Four (4) in-person workshops to instruct and collaborate with local administrators in the planning of mitigation financing programs;
3. One (1) webinar workshop to instruct local administrators who were unable to attend any of the in-person workshops;
4. Offer of assistance to guide local governments through the planning of a local mitigation financing strategy; and
5. Perform consulting services in the form of recommendations, specific project plans, and guidelines for localities that request our assistance in the design of 'model' programs.

This report details the outcomes of the project workshops along with follow-up discussions and planning. One notable, common outcome from all of the workshops was the emergence of a **common theme among many of the participants that promotion of mitigation, through communication efforts as well as through financial assistance, works best when the public and private sectors responsible for promoting mitigation work together**.

Introduction

The project, contracted on March 8, 2011, has included research of viable program designs, development of presentation materials, presentation and collaborative workshops, as well as follow-up meetings with interested local governments and related parties. Details of these activities are outlined throughout this report.

Since the project surrounds the challenges of mitigation finance program design and implementation, an appropriate starting point for this report is to update readers regarding the status of PACE programs, which were dealt a blow in May, 2010 by Fannie Mae, Freddie Mac and the Federal Housing Finance Agency (FHFA). Therefore, the report begins with an introduction to the current PACE environment and steps being taken to overcome the obstacles created.

Overcoming Lender Concerns

The Property Assessed Clean Energy (PACE) concept originally developed by Berkeley allows qualified property owners to borrow money, with little to no upfront cost, to install renewable generation, energy efficiency, and water conservation measures. Because the PACE-type loan is paid back through a special assessment tax levied against the property, constituting a senior property lien (with legal precedent over the first mortgage), the back taxes (loan payments) must be paid back before the regular mortgage in the event of default.

The PACE strategy has received a lot of national attention in the past year centering on the issue of the senior tax lien. In May 2010, Fannie Mae and Freddie Mac (as charged by their parent entity, the Federal Housing Finance Agency, or FHFA) sent letters to lenders, reminding them that their agreements do not allow them to purchase loans that have a senior lien.[6] These letters implied that borrowers with a PACE (or similar tax lien) would not be allowed to refinance or sell their properties unless the liens were paid off. Since two-thirds of the nation's mortgages right now are controlled by one of these entities – Fannie Mae or Freddie Mac – this development has had a wide-reaching effect on the ability of tax-lien-structured local financing programs to thrive. In fact, both the BerkeleyFirst and the residential ClimateSmart Loan programs have been suspended while the issue (hopefully) gets resolved.[7]

Federal legislative response.[8] Responding to the new Fannie Mae-Freddie Mac underwriting standards, two identical Bills were introduced in the House and Senate in Summer 2010 intended to protect the PACE programs. U.S. House Representative Michael Thompson (D-CA) and 48 co-sponsors introduced House Bill 5766 on July 15, 2010 and Senator Barbara Boxer (D-CA) and 6 co-sponsors introduced Senate Bill 3642 on July 22, 2010 as attempts to ensure that homeowners with mortgages held by Fannie Mae and Freddie Mac would be able to participate in PACE without losing the ability to finance or refinance their homes. Each stated as its goal:

> *To ensure that the underwriting standards of Fannie Mae and Freddie Mac facilitate the use of property assessed clean energy programs to finance the installation of renewable energy and energy efficiency improvements.*

Both Bills died in committee during the 2010 Session, but similar legislation has been reintroduced in the 2011 Session and has received bipartisan support in the House.

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[6] Timiraos (May 17, 2010).

[7] Notably, the ClimateSmart program continues to accept applications from commercial property owners for funding. Continuation of the commercial loan segment of the program serves as de facto evidence of the program's success, notwithstanding the government lender challenges on the residential side.

[8] *<http://www.efficiencyfirst.org/blog/category/financing-incentive-programs/>*

Public lawsuits filed in response.[9] Recently the State of California, the township of Babylon, New York, and Leon County in Florida filed suits against the federal agencies in an effort to reverse the regulatory actions that have undermined property-assessment-based loan programs. All of these lawsuits are currently still pending and are being decided within local jurisdictions.

Modifications to PACE programs as a response.[10] The Vermont Energy Act of 2009 included a section for the creation of energy efficiency loan programs using the PACE special districting concept. Like those of other states, Vermont's PACE program was adversely impacted by the actions taken by FHFA in 2010. Vermont's response, arguably, has been the most proactive in overcoming the new hurdles Fannie Mae and Freddie Mac have placed on such programs. The Vermont Energy Act of 2011, passed in the Vermont Legislature and signed by Governor Shumlin on May 26, 2011, does the following:

1. Subordinates the lien supporting the PACE assessment to any existing property-secured liens – this will comply with Fannie Mae and Freddie Mac concerns;
2. Requires all participating property owners to contribute a one-time non-refundable payment equal to 2% of the assessment to a reserve fund that will be available to repay any assessments in arrears due at closing in a default; and
3. Requires existing funds designated for energy efficiency be deposited into an escrow account maintained by the state treasurer (equal to 5% of the total assessments, total not to exceed $1 million) to provide further protection from losses due to defaults that are not covered by the reserve fund.

Jointly, these direct and indirect efforts can reasonably be expected to have a favorable impact on the ease of reconstituting existing PACE programs as well as developing future programs.

Encouraging Local Mitigation Finance Design in Difficult Times

The Storm Risk Center began the current project during a challenging economic and regulatory environment. Despite this, the outcomes have been more positive than not. The basic goals of the project were achieved efficiently, and collaboration with local officials resulted in innovative ideas for future mitigation finance design and public awareness campaigns. These outcomes are discussed in the sections that follow.

Project Performance Measurement

The proposed project addressed mitigation needs by helping local governments plan for future implementation of local PACE or related programs while simultaneously exploring alternative financing options. Governments were provided the most up-to-date information so

[9] Brown (2010), Ruggeri (2010) and Brown (2010). The Federal Housing Finance Agency (FHFA), in October 2010, filed a motion to dismiss the California lawsuit.
[10] Miller (2011), Lillian (2011).

that they are prepared to move forward with residential windstorm mitigation efforts through a financing program that makes mitigation more affordable to residents.

Project Outputs and Benefits

As part of the project, the Storm Risk Center delivered the following project outputs:
1. Workshop(s): mitigation financing workshop for local administrators;
2. Recommendations and guidelines for localities that responded to our offer of assistance; and
3. Development of model (pilot) programs for localities that were ready to move forward on a plan.

The information disseminated during the project provided a combination of potential short-term and long-term benefits to multiple stakeholders:
Current and potential homeowners. Low-cost, long-term financing increases affordability in the short term substantially over what it would be if either up-front payment, short-term conventional loans, or home equity loans were the only options.
State and Federal government: Financing programs, when designed, implemented and promoted at the local level, reduce the pressure on already-overburdened State and Federal program funds.
Local government. Municipalities and county governments participating in the design and implementation of local financing programs that encourage citizens to invest in windstorm mitigation would not have to compete for scarce general revenue in the state budget. They also enjoy more specific benefits from their participation. For instance, the choice of products, installers, and installation techniques that receive favorable financing can be controlled at the local level.
Insurance industry. Property insurers, especially those doing business in Florida, have long encouraged the mitigation of buildings against windstorms. In fact, billions of insurance industry dollars have gone into the research and development of "best practice" home hardening designs, materials and techniques. Programs that improve the affordability of home hardening can reduce actual loss damages from windstorms, and thus reduce the cost of providing homeowners insurance.
Financial services industry and investors. The financial services industry can benefit from mitigation financing programs in two distinct ways. First, protecting homes against natural disasters decreases the risk of mortgage default. Second, to the extent that the financial services companies and other investors participate directly in providing the source of capital for these programs (especially in the case of Voluntary Home Hardening Loans), they benefit from an increased demand for their principal and the resulting interest gains on that principal.
Construction and windstorm protection industries. The encouragement of home mitigation efforts inherently creates increased demand for the products and services of companies

working in the manufacturing, construction, and windstorm protection industries. Increased demand likely leads to increased jobs for those in these and related industries.

Non-participating property owners and tenants. Property owners and renters not participating directly in a mitigation financing program still are likely to benefit from such a program in multiple ways. First, a hardened home is not only less susceptible to direct damage from windstorms, but is also less likely to produce damage to neighboring buildings resulting from windborne debris. Thus, the neighbors benefit via reduced collateral risk to their own properties and belongings. Second, whether simply a matter of education by observation or a sense of peer pressure, there is evidence that individuals are more likely to engage in mitigation if their neighbors do. Research indicates that individuals react positively to efforts made by their neighbors.[2]

Florida citizens and taxpayers. To the extent that local financing programs garner sufficient participation resulting in substantially reduced state-wide loss damages, all property owners benefit via lower Citizens and Cat Fund assessments that might have otherwise become necessary.

Project Efficiency

The extent to which the approved budget was followed provides the ultimate measurement of project efficiency. Expense tracking, invoice payments to outside contractors, and payment invoices to the RCMP program were managed through a three-tiered approach. As the project developers and creators of the proposed project budget, Storm Risk Center staff was the first level of budget tracking. Financial administrative staff within the FSU College of Business's Dean's Office provided additional expertise and guidance. Finally, well-qualified and experienced financial management personnel in the FSU Office of Sponsored Research were the final backstop for ensuring the budget was met and accurately reported, and for submitting a final invoice to the RCMP program.

Indicators of efficiency success. Staying within the budget while providing high-quality deliverables indicates success. **The project ends slightly under budget and having conducted more workshops than originally promised.**

Project Effectiveness

The most desired outcome for this project was that local governments in windstorm-vulnerable areas would have substantially increased their knowledge of innovative ways to finance residential windstorm mitigation, and would be enabled to explore and create local programs that will make residential windstorm mitigation financing more available and affordable to their citizens. Measurable indicators of effectiveness include:

Local government interest. More than 200 local governments expressed interest in the project representing strong geographic and demographic diversity. These communities are mapped in Appendices A-H. The Storm Risk Center developed presentation materials in March-April and announced three workshop locations – Seminole, Horseshoe Beach and Tallahassee – that might provide geographic and demographic diversity, thus hopefully optimizing the ability and interest of local officials to attend at least one. After the initial announcements, four localities requested a local workshop in the Northwest Florida area and six requested one be held in South Florida. 42 local governments requested written materials and additional information.

Local government workshops conducted. During the May-June time frame four (4) in-person workshops were conducted in Seminole (Pinellas County), Horseshoe Beach (Dixie County), Milton (Santa Rosa County) and Plantation (Broward County). Fifteen (15) local officials registered for the Seminole workshop and 22 registered for Plantation. The presentations made at these two events can be found in Appendices I and K.

The Storm Risk Center did not conduct registrations for the Milton and Horseshoe Beach events because the local governments announced these and managed the attendance. Furthermore, these two workshops differed slightly from the others as the local governments invited people from the community to join the meeting. The workshop in Milton was scheduled to immediately follow the local LMS meeting and enjoyed over 40 participants. The presentation made there is located in Appendix J. The Horseshoe seminar resulted in 11 attendees, including the City Commission members and a handful of local homeowners. The venue for the event offered no audio-visual equipment so a conversational forum was used in lieu of a formal presentation there.

The scheduled Tallahassee workshop received only four in-person registrations so it was re-scheduled as a webinar. The webinar, held on May 9th, was archived and placed on the Storm Risk Center web site at www.stormrisk.org. As of the date of this report, it has received more than 30 separate views.

Local government mitigation financing intentions. A record of phone calls, emails, and other contact made by local government officials was kept in the Storm Risk Center and the type of request was tracked. Additionally, outreach efforts such as emails and calls were recorded. Simple surveys were collected at workshops and other relevant venues. Furthermore, follow-up calls to local governments provided insight into their progress. Although no local governments have initiated PACE (or related) style mitigation finance programs as of the date of this report, several have stated they would consider such a design in the future, and are taking a wait-and-see approach to the status of PACE nationally and the impact of investor confidence.

General indicators of success or failure. Overall, the Storm Risk Center views the project as successful. One hundred per cent of local governments initially expressing interest in this project were contacted about the workshops. One hundred per cent accommodation was made for all requests for workshops or meetings. Individual officials in Horseshoe Beach and surrounding areas (e.g., Taylor, Levy, Gilchrist) have expressed an interest in assistance from the Storm Risk Center to design a local mitigation finance program around a combination of potential grants and financing. The project reached, at a minimum, 56 government officials in person and potentially 30 more via webcast already with information about innovative financing tools for windstorm mitigation.

Workshop – Seminar Outcomes

The presentation of mitigation finance conducted within the workshops centered on discussion of the following:

1. Mitigation research and challenges
2. Optimal mitigation incentives
3. The Center's DEM projects
4. Local financial strategies as modeled by the energy sector
5. Local financing strategies within Florida
6. Local financing strategies outside Florida
7. Where to go from here?

The topics garnered a host of questions and comments, and enjoyed strong contribution from the audience. For summary purposes, the contributions / discussions are organized around:

1. Mitigation incentives
2. Current financial strategies
3. Where to go from here

Mitigation Incentives

Workshop participants were receptive to and generally well versed in the concept of providing mitigation programs that optimally incentivize actual home hardening. Several participants raised the issue of windstorm inspections, the potential for fraud in that system and the resultant impact on property insurance prices. Also brought out in the discussions was the issue of adequate insurance rates along with the possibility of making rating factors transparent enough for homeowners to appreciate the potential immediate favorable effects on insurance costs if appropriate mitigation measures were undertaken. Repeatedly, participants mentioned the importance of getting emergency management and insurance communications to homeowners "on the same page."

Current Financial Strategies

Participants expressed an interest overall in the existing finance programs being used in the energy sector to incentivize energy improvements to homes. They also expressed concerns, however, about the pending lawsuits against the FHFA, the current credit / economic obstacles for municipalities and homeowners, and the difficulty of attracting investors to a financing program given both of these challenges.

Much of the audience discussion of current strategies understandably focused on grants since grants have historically served as a major funding source for local mitigation programs. More than one participant in more than one workshop raised an important issue around communications and public awareness. One audience member in the Seminole event encapsulated the challenge succinctly, by stating, "I have grant money I can't give away. Not enough homeowners even apply despite efforts to advertise the program to the entire community." Another related contribution made was the issue of, "those needing the grant to be able to afford the mitigation can't afford the match."

Where to Go From Here

Summarizing a lot of similar comments, the perceived future of mitigation promotion seems to rest in the use of 1)local financing to help homeowners achieve a grant match; public awareness campaigns encouraging inexpensive (or even costless) hardening techniques that are effective to reduce losses; the possibility of using federal grant monies to guarantee (back stop) finance programs rather than limit their use to direct mitigation projects; and local / regional public-private partnerships.

The discussion of public-private partnership included two strategic goals:

1) Get the public and private parties who inherently bear the bulk of responsibility for promoting home hardening (e.g., emergency management, insurance agents, community bankers) "on the same page" with respect to how they communicate the importance of specific mitigation efforts to property owners.
2) Create programs whereby all parties who inherently bear the bulk of responsibility for promoting home hardening actually have "skin in the game" – some direct benefit to gain from success in encouragement of home mitigation.

These ideas, as much or more than others, seemed to resonate within each participating group of local officials and should be a viable strategy that can be accomplished in the near term.

Conclusions and Next Steps

The Storm Risk Center discovered a significant amount of local interest in the local mitigation financing concept; we see both action and active interest in finding innovative ways to fund property improvements that make homes more windstorm resistant and environmentally friendly.We identified the various impediments to these programs as well as potential measures that may overcome these impediments, and explored existing programs that may be used as models for the creation of mitigation financial incentives for Florida property owners.

Based on the results of this project, we recommend development of local public-private partnerships that include local officials as well as community leaders, along with members of the insurance, real estate and banking sectors. It is our hope that despite recent setbacks in the credit sector, many local governments will find ways to collaborate with the private sector to help property owners invest in safer homes and communities.

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