A brief history of the loss mitigation grant program.

The idea for a grant program for hurricane retrofits originated with the Technical Advisory Committee of the Hawaii Hurricane Relief Fund ("HHRF"). HHRF was a State government agency that provided hurricane insurance in the market from 1994-2002. The Technical Advisory Committee recommended that HHRF set up a grant program to reduce the overall risk of losses from hurricanes. HHRF refused, saying that it was a policy decision up to the Legislature to establish such a program and to determine how much money would be spent on it. HHRF was concerned that such a program could deplete the reserves held by HHRF for payment of claims under HHRF insurance policies and was also unsure about the cost-effectiveness of a grant program for hurricane retrofits. In 1999, HHRF had pioneered a premium discount program for hurricane retrofits and believed that this was the best approach to the issue.

Upon hearing of HHRF's position, the Legislature instructed HHRF 's Technical Advisory Committee to do a feasibility study of a grant program. The Technical Advisory Committee outsourced to private vendors the analysis of the cost-effectiveness of the program and the analysis of the potential demand. In 2001, this study was completed and sent to the Legislature.

The cost-effectiveness study results were a bit of a mixed bag. Hurricane clips and roof decking improvements were found to be cost-effective, but only by a small margin. For every dollar invested, the return would be \$1.21. Window and door opening protection and wall to foundation protection were found to be not cost effective because they are quite expensive to install . However, the study results were based upon computer modeling projections of future overall hurricane losses in Hawaii and were intended to indicate the aggregate return on investment for a grant program as a whole. Thus, for example if \$100 million dollars were spent by society on hurricane clips, the net benefit in reduced hurricane losses Statewide would be \$21 million.¹ It is important to recognize that these results do not tell us how cost-effective a retrofit will be in reducing losses for an individual house that is in fact hit by a hurricane. That will depend

¹ This does not include the cost of administration and marketing of the program.

on many factors including the construction of the house, the type of retrofits done, and the wind forces acting on the house. But it is quite possible that the damage reduction will far exceed the cost of the retrofit. Note that residential safe rooms were not considered under the original cost-effectiveness study.²

The marketing demand study showed that roughly a quarter of those polled would be very willing to install hurricane retrofits if half the costs were paid by the State. Many more were found to be somewhat likely to do so. If we use 240,000 single family homes as a base and assume that about 75% need retrofits, this suggests total potential demand of at least 45,000 people. At an average grant amount of \$1,000, it is easy to see that the costs would add up quickly if the program were to fully develop as indicated by the demand study. It is possible, however, that the demand study was flawed. Because the study was trying to address demand for many types of retrofits, the respondents were not told what the retrofits would cost them. Retrofits can cost anywhere from several hundred dollars to tens of thousands of dollars. Without knowing their out of pocket, it is unlikely that the respondents' answers were very accurate.

Based primarily on the study and vigorous lobbying from a hurricane retrofit vendor, the Legislature established the hurricane retrofit grant program in 2002. The basic theory was that the public was underinvesting in hurricane retrofits and needed additional financial incentives. From 2002 to 2005, Governor Cayetano and then Governor Lingle vetoed funding for the program on the basis either that it was too small to be effective or because the money was taken out of HHRF principal rather than interest. In 2005, the Legislature overrode the Governor's veto and provided funding for the program from HHRF moneys. The Insurance Division of DCCA, which was tasked with implementing the program, hired a structural engineer to design innovative technical specifications for the program. The program went online in September 2006. Each year the Legislature must act to approve additional moneys for the program.

The maximum grant amount of \$2100 was set to target hurricane clips and roof decking improvements, as these were found by the feasibility study to be the cost-effective retrofits. Opening protection and wall to foundation protection were included in the program primarily to maximize people's options. Residential safe rooms were a late

² Life safety is a separate issue from a monetary cost-benefit analysis of property loss reduction.

addition to the program and were not considered in the original design of the program. The matching grant amount of 35% of the costs was set to give people enough of an incentive to act, but at the same time allow the broadest participation possible. A balance had to be struck between the per person grant amount and the total amount of funding that would be available for the program. If the per person grant amount is set too high, the program would run out of money before it could help enough people to be considered effective.