

## Part 4: Summary

The ravages of a flood will require you to replace some, if not all, of the major heating and cooling equipment in your home and replace some of the building components.

In cases where replacement is the best solution, selecting equipment or components with higher energy efficiency can often be accomplished at relatively little additional cost. Often the improved energy conservation features used in rebuilding the home's shell will allow downsizing of some of the heating and cooling equipment to the point where the additional costs, if any, of higher efficiency equipment is offset by savings from buying a smaller system.

Energy conservation will add substantial value to the house and will provide increased dividends to the homeowner in reduced utility bills, especially if fuel costs rise in the future.

Perhaps the major question left involves financing, or from the homeowner's point of view, "Improved energy efficiency sounds fine, but how can I pay for it?" Many sources of funds and techniques are available and should be explored to reduce the cost of adding energy efficiency in homes which are being rebuilt after flooding. Some of these are listed below.

**Utility rebate programs.** Many utilities offer incentive programs that promote residential energy conservation. These

programs range from outright subsidies to offset the additional costs of high efficiency systems, to low (perhaps zero) interest loans that are repaid in installments added to your monthly utility bill. By installing an energy-efficient system in a home, the energy costs are smaller than before. These reduced energy costs, even when combined with an interest payment for amortizing the loan from the utility, frequently result in a monthly utility bill that is lower overall than the pre-flood bill.

**Low-interest home improvement loans.** Current low interest rates make home improvement loans more attractive than in the past. The avoided costs from energy savings will help to offset principal and interest payments to service the loan.

**Disaster relief programs.** Funds may be available through disaster relief programs. Remain aware of disaster relief efforts and discussions between local, state and federal organizations and authorities.

**Bulk purchase buying.** Flood damage is usually widespread. Consequently, your equipment replacement needs will probably match those of your neighbor. Therefore, you may be able to save by purchasing similar energy-efficient equipment in bulk quantities by coordination with neighbors, insurance companies, and neighborhood associations.

***Energy-efficient mortgages.*** If you do consider adding energy efficiency measures to your home, you may qualify for a special mortgage that rewards such features based on the idea that your energy payments will be lower as a result and you will be a better credit risk. While these mortgages may slightly increase the amount of monthly payments, they will also extend your ability to borrow. These mortgages are offered through four federal lending agencies. Check with your local bank for more details about how to qualify or how you can apply for an energy-efficient mortgage.

Finally, after a natural disaster where major rebuilding is necessary, be wary of opportunists who will come into the area trying to make a fortune from your misfortune. Be a cautious consumer.

- Hire licensed contractors.
- Always ask for references from previous customers, or check with consumer protection agencies.
- Don't sign any contracts if you have doubts.
- Don't pay for work in advance.

## References

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3. "Rx for Flood Damage," 1993 news release from the American Plywood Association.
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6. "NAIMA's Position on Flood-Damaged Insulation," personal communication from the North American Insulation Manufacturers Association, October 5, 1993.
7. **Articles in Cleaning and Restoration Magazine**, Jan. 1994, and personal communication from the Association of Specialists in Cleaning and Restoration.
8. "FOH Protocol for Controlling Microbial Growth After a Flood," Office of Environmental Hygiene of the U.S. Public Health Service's Division of Federal Occupational Health (FOH), Indoor Air Quality Update, November, 1993, and personal communication with Dr. Chin Yang, February, 1994.
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