The cost of air conditioning a typical home in Southwest Florida accounts for about 40 to 50 percent of the annual electric budget. This makes the cost and the need for summer comfort one of our greatest energy concerns. Used properly, fans can enhance comfort and reduce air conditioning costs. Poorly managed fans; however, can unduly inflate your electric bill.

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For additional information, call 997-SAVE or 1-800-201-SAVE and ask for Marketing and Energy Services.

THE ¢ENTSABLE WAY TO PERSONAL COOLING WITH FANS

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PERSONAL COOLING WITH FANS

HOW FANS WORK

Fans move air. Some fans, like ceiling fans or oscillating fans, simply circulate the air within a room. As the air moves across moist human skin, the wind-chill effect occurs and helps the body shed heat through evaporative cooling. The wind-chill effect; however, will only affect people, not the dry surfaced, inanimate objects in your home. Fans left running in empty rooms simply consume power without producing real benefits. A fan that continually runs costs approximately $7 per month. The moral of the story is to use fans in occupied rooms but turn them off when the room is unoccupied.

Some fans, such as range hoods, bathroom exhaust fans and even simple box fans set in open windows, cause an air exchange. Homes and other structures are far from air tight. If a fan removes air from a structure, more air enters the structure to take its place. This ventilating effect can benefit the structure, but only if an equitable exchange occurs. If your use of ventilating fans causes you to discard household air that is cooled and dehumidified, and to bring in high temperature and high humidity outdoor air, then you have struck a losing bargain. Air conditioning costs will rise. Ventilating fans should only be used in mild weather to enhance passive cooling, or when conditions create high indoor heat or humidity levels (e.g., steamy bathrooms and kitchens).

FAN SIZE AND PLACEMENT

Typical ceiling fans are effective from 4 to 6 feet from the center of the fan. Top-of-the-line ceiling fans can be effective from 8 to 10 feet. For maximum effect, the ceiling fan should be dropped as far from the ceiling as possible, but never lower than 7 feet above the floor. Ceiling hugger fans provide 40 percent less air movement than standard ceiling fans. In general, a single fan is adequate for bedrooms; however family rooms, great rooms and other rooms longer than 18 feet could require multiple fans. When planning fan placement, remember fans cool people. Place them only where people are likely to congregate.

TO REVERSE OR NOT TO REVERSE

In theory, it is wise to reverse (fan pulls air up) ceiling fans in the winter and run them at a low speed whenever the heating system is in use. This reduces the tendency of hot air to rise to the ceiling and become trapped (a process known as stratification). While this might be appropriate for homes with very high cathedral ceilings, or where large window surfaces cause direct solar heat gains, tests done by Florida Solar Energy Center (FSEC) performed at U.S. Air Force facilities prove this technique to be of little to no value in the typical Southwest Florida home.

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ATTIC VENT FANS

Attic vent fans are thermostat controlled to force ventilation of the attic when solar heat accumulates and causes high attic temperatures. Testing done by FSEC shows that attic vent fans use more power than they save in attics with normal passive venting and code level insulation. If insulation is inadequate, or ventilation poor, it would be more cost-effective to correct the inadequacy than to install vent fans.