Joint Committee on Taxation September 5, 1980 JCX-42-80

Description of H.R. 7688, H.R. 7690, and H.R. 8019 Relating to Credits for Passive Solar Residential Construction

#### Present law

Under present law, there is a credit for installation of a renewable energy source system of 40 percent of the first \$10,000 of such expenditures on the taxpayer's principal residence. In the case of newly constructed homes, the original purchaser may claim the credit for separately stated renewable energy source costs when use of the new residence begins. Under recently issued Treasury regulations, renewable energy source property eligible for the credit is defined to include both active solar systems and passive solar systems. However, expenditures for components of a passive solar system which serve a dual function are not eligible for the credit. Thus, the credit is not available with respect to expenditures for structural components such as roofs, walls, and windows but is available for shading and venting devices that do not have a dual purpose.

## Explanation of bills

H.R. 7688, H.R. 7690, and H.R. 8019, scheduled for hearings before the Committee on Ways and Means on September 8, 1980, would allow a credit to builders who install passive solar systems in new residences with one to four residential units. For residential units completed after September 30, 1980, and before December 31, 1985, the maximum credit per unit would be \$2,000. For units completed in 1986, 1987, and 1988, the maximum credit would be \$1,500, \$1,000, and \$500 respectively. No credit would be available for units completed after 1988.

A system would qualify if it contains each of the 5 components described below, and the tax credit would be determined by reference to a table, issued under regulations, which reflects the interrelationship of the solar collection area and the heating load for the geographic location of the residence.

A qualifying passive solar energy system must contain:

- (1) a solar collection area that faces south (e.g., windows),
- (2) an absorber (e.g., dark surfaced floors or walls),
- (3) a storage mass with sufficient volume, depth and thermal capacity appropriate to the geographic area (e.g., dense stone walls or floors),
- (4) a heat distribution method with ducts, openings, fans, and pumps to circulate air throughout the habitable areas, and
- (5) heat regulation devices to control heat gain and heat loss, appropriate to the season (e.g., shades and insulation).

If a particular home qualifies for the credit, the builder would calculate the exact amount of credit as follows. First, the heating load of the house would be calculated by multiplying the floor area of the house by one of eight insulation factors. Next, the passive rating of the house would be calculated by dividing the passive solar collection area (essentially the number of square feet of south-facing windows) by the heating load. Finally, the amount of the credit would be taken from a credit table based on location and passive rating.

# Prior Congressional consideration

During consideration of the Crude Oil Windfall Profit Tax Act of 1980, a similar provision was adopted in a Senate floor amendment. The amendment was not agreed to in conference.

### Effective date

The bills would be effective for units completed after September 30, 1980, and before January 1, 1989.

# Revenue effect

It is estimated that the provision would result in a reduction in budget receipts of \$6 million in fiscal year 1981, \$22 million in fiscal year 1982, \$40 million in fiscal year 1983, \$63 million in fiscal year 1984, and \$365 million in fiscal years 1985 through 1989.