

A Touchstone Energy Cooperative

Your interest in net metering is important to Inter-County Energy.

Members should consider the economics of purchasing equipment and determine whether generating electricity will lower their monthly power costs.

This worksheet will help estimate the annual operating cost of generating equipment and compare costs to energy purchased from your cooperative.

## Information Required For the Capital Cost Recovery Analysis

(1) Enter the total cost of purchasing and installing the generating equipment:

Be sure to include any interconnection and insurance costs in (1)

(2) Enter the amount of grants, tax credits or other funding not required to be repaid by the member for the purchase and installation of the generating equipment:

\$

(3) Subtract Line 2 from Line 1 to determine the net cost of the equipment:

\$

(4) Enter the estimated amount of annual maintenance cost of the generating equipment:

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## Table 1

|       | 7.5%     | 6.5%     | 5.5%     | 4.5%     | 3.5%     |
|-------|----------|----------|----------|----------|----------|
|       | Capital  | Capital  | Capital  | Capital  | Capital  |
|       | Recovery | Recovery | Recovery | Recovery | Recovery |
| Years | Factor   | Factor   | Factor   | Factor   | Factor   |
| 1     | 1.0750   | 1.0650   | 1.0550   | 1.0450   | 1.0350   |
| 3     | 0.3845   | 0.3776   | 0.3707   | 0.3638   | 0.3569   |
| 5     | 0.2472   | 0.2406   | 0.2342   | 0.2278   | 0.2215   |
| 10    | 0.1457   | 0.1391   | 0.1327   | 0.1264   | 0.1202   |
| 15    | 0.1133   | 0.1064   | 0.0996   | 0.0931   | 0.0868   |
| 20    | 0.0981   | 0.0908   | 0.0837   | 0.0769   | 0.0704   |
| 25    | 0.0897   | 0.0820   | 0.0745   | 0.0674   | 0.0607   |
| 30    | 0.0847   | 0.0766   | 0.0688   | 0.0614   | 0.0544   |
| 35    | 0.0815   | 0.0731   | 0.0650   | 0.0573   | 0.0500   |
| 40    | 0.0794   | 0.0707   | 0.0623   | 0.0543   | 0.0468   |

(5) Enter from Table 1 either:
(a) the interest rate of borrowed funds to purchase the generating equipment, or (b) the interest rate that would be received on the money used to purchase the generating equipment:

(Pick the closest interest rate from the table)

**(6)** Enter from Table 1 the number of years the generating equipment can be expected to operate or the number of years for the loan:

number of years for the loan: \_\_\_\_\_ yrs

(Pick the closest number of years from the table)

(7) Enter the capital cost recovery factor from Table 1 above:

(Locate the interest rate in the top row of the Table 1 that you entered on Line 5. Proceed down that column to the number of years corresponding to the entry on Line 6. Enter the Capital Recovery Factor indicated in that box on Line 7.)

(8) Enter the estimated percent of time the generating equipment will operate (enter as a whole number):

(A wind turbine may operate 25% to 40% of the time depending upon your geographic location, however, you should confirm by independent analysis the percent of time your specific generating equipment is likely to operate.)

**(9)** Multiply (8) X 8760 / 100 =

the number of hours per year of operation

(10) Enter the rated capacity of the generating equipment in kW

(11) Multiply (9) X(10) =

kWh per year (generated)

(12) Enter your cooperative's average cost per kilowatt-hour for the energy you purchased during the last 12 months (\$/kWh):

\$ \_\_\_\_/kWh

(Excluding any monthly Facility Charge or Customer Charge.)

## Calculation of Annual Operating Cost of Equipment

The total annual operating cost of equipment is calculated by:

(13) Multiply the net cost of the generating equipment (Line 3) by the capital recovery factor from Line 7

\$

(14) Add the annual maintenance cost of the equipment (Line 4) +

\$

(15) To determine the total annual operating cost (TOC) of the equipment, add Lines 13 and 14 =

\$\_\_\_\_

(16) Divide Line 15, the total annual operating cost of the equipment by Line 11, the kWhs to be generated each year:

\$\_\_\_\_per kWh

Line 16 is the total annual operating cost for the generating equipment per kilowatt-hour.

(17) Co-op Average Cost per kWh from Line 12:

\$\_\_\_\_ per kWh