Rationale For Support of Howard County Ag Board Criteria on CSF Development

The County zoning regulations clearly state that any conditional use on Ag Pres sites must be supportive of the principal Agricultural Use . One method for determining a principal use could be the amount of the site dedicated to that use versus other uses. A more definitive criteria would be the relative income producing capability of the uses.

The current Ag Bd criteria is focused on the relative allocation of site area namely not more than 10% for a CSF with the remaining 90% for the Agricultural uses.

If one were to consider the income based analysis even at the 10% level the CSF would easily out perform the 90% of the site dedicated to Agricultural use.

In come Based Analysis
Example 1
Traditional crop farming in Howard County has been geared to planting corn and soybeans in alternating years. Corn yields have averaged 160 to 190 bushels per acre while soybeans. have averaged about 60 bushels or less per acre. Market prices fluctuate but corn is currently bringing $4 per bushel while soybeans are running between $8 and $ 9 per bushel.

Thus a farmer planting and harvesting a corn crop would have a gross return of $640 to $760 per acre . The return on the soybean crop would be between $ 480 and $540 per acre.

Since the farmer would incur a number of costs, including land prep , fertilizing, seed , planting ,and harvesting, the net return wold be far less than the sale price of the crop. The net returns vary from year to year but a 20 % profit margin would be considered a decent return. Using these factors a farmer might expect to net from $108 to $152 per acre.

If the farm owner were to lease land for the development of a CSF the annual income stream would be $1600 to $1800 per acre . There would be no cost to the farmer and all of the lease payments would be net profit.

Thus the ratio of income production ranges from 10 to 18 times in favor of leasing to a CSF Developer.

Applying these factors to the current criteria of a 10% /90% land allocation the CSF occupying just 10% of the site is more than equal to or predominant over the Agricultural use.

Example 2
If one were to consider the total income generation of the site the comparison is even more extreme.

Based on national norms a CSF on one acre of land can generate an annual return of between $21,000 to $42,000. per acre of solar array. This wide range is due to the disparity of annual hours of sunlight and the prevailing rates for electrical power from state to state For example Arizona has 3806 hours compared to New York with 2120 hours. Rates vary from 9,95 cents per KWH in Washington state to 30.45 cents per KWH in Hawaii.

Maryland at 2582 hours of sunlight is about average among the states , while its rate structure at 14 .32 cents per KWH is about midway in the rate range.
Thus a Maryland CSF could be expected to produce a gross income of at least $30,000 per acre per year .
This compares with a corn crop maximum gross income of $760 per acre .