

Community Energy Gardens

By Bob Paleck

Is the idea of reducing your monthly energy bill appealing? How about limiting your personal impact on environmental degradation? Does the idea of micro solutions as opposed to large engineering projects make sense to you as a member of a small rural community? Would you be interested in being at the forefront of helping make renewable energy use a reality in your community? The concept of Community Energy Gardens offers all this and more, and it could be a distinct possibility in your future.

Community Energy Gardens could become highly successful twenty-first Century equivalents of the old community flower and vegetable gardens if their design, establishment and promotion are coordinated at the local, state, and national levels. The needed technology is mature and available. Renewable energy designs and components are in their second and third generations with continuing developments improving efficiencies and economies of effort and expense. Starting in December, the latest solar electric panels in US production cost under one dollar per watt. Unfortunately, what is lacking is an optimum paradigm to enable and encourage universal enjoyment of the benefits by large segments of the population: the many people who don't own the property they occupy or can't afford their own private installations.

Community gardens were universally popular and highly successful at providing fresh, healthy, affordable vegetables during and after conflicts and calamities like World War II and the Depression. Vegetable gardens remain popular in rural and even suburban settings. Peri-urban gardens promote benefits on a smaller scale in many cities. Wherever they are located and whatever the crop, the common, almost superior - product of these gardens isn't that of the plants. Rather, it is the sense of accomplishment and fulfillment resulting from the personal investment of each gardener. Many urban lots and rooftops remain vacant and available locations for beneficial use.

Rekindling interest in and increasing the use of renewable energy would benefit much more than our physical environment. The moral and mental health of our country, particularly the younger generations', also needs resuscitation. A casual look at many popular social blogs shows that an explosion of cynicism is wrecking any feeling of obligation to personally contribute to or encourage cooperation with most endeavors. The most popular gadgets sold are all prefaced with "i". Meanwhile the sense that corporate, political and judicial barons are the de facto owners of Earth and its resources is destroying any concept of collective, popular, shared responsibility. Even if all ecological problems are solved, in order for future generations to succeed, much less enjoy life on our planet, the sense of disenfranchisement must not only be stopped, it must be reversed. Promoting and realizing everyone's use of renewable energy could help accomplish these goals. Engaging and positively reinforcing the experience of participation for our population by collective effort towards a mutually beneficial, meaningful enterprise is just as important as reduction of our carbon footprints.

Organizing, building and ultimately interconnecting their systems to the national power distribution grid via Net Metering installations, urban Community Energy Gardens could be a practical extension of Rural Electric Cooperatives, or REC's. Minimizing the expense to any individual while completely sharing the risks as well as product of the enterprise, REC's currently provide electricity to 12% of the U. S. population (40 million people in 47 states). With relatively minor changes the cooperative model could fulfill all management, legal, engineering, and fiscal needs of the Community Energy Gardens.

Specifically, the Community Energy Gardens would:

- Facilitate locations for the installation of equipment. Retrofitting solar panel and wind arrays require optimized solar look-angles, exposures and ownership or easements for those spots that are suitable. The roofs of many government buildings provide examples that could reduce the need to purchase private properties if administered properly. Owned by the citizens, why not put the municipal rooftops to use for their benefit?

The joint ownership and liability of the cooperative must be established and administered in an equitable and lawful manner. Each shareholder needs to consider and expect their portion of the group's assets, product and obligations to be equal to every other share.

- Private individuals and companies enjoy various incentives for building or installing renewable energy generation facilities depending on their location. Tax write-offs, rebates and credits should be shared by Community Energy Gardens as well to promote their acceptance and make the benefits transparent to private investors. The ecological advantages alone would compensate for any perceived profit unique to the shareholders.
- Collective design, purchasing and lobbying benefits are directly proportional to the numbers of people involved or represented. The engineering, logistic and legislative needs will vary only slightly across the spectrum of locations possible for inclusion compared to the greater universal similarities and advantages.

Existing electric network owners might argue that the financial gains possible to be enjoyed by the Community Energy Gardens are at the expense of their profits and investments. Distributed Generation, interconnected with existing distribution facilities, in the form of Net Metering installations is interpreted as a liability; the utilities limit the total quantity of consumer generated electricity to some minor percentage of peak historic demand on the respective system. Although it might be valid to argue that the smaller, less robust or reliable consumer generation doesn't pay for the needed distribution and infrastructure, new nuclear, coal and other non-renewable generation will not keep up with projected electric demand growth. This is especially true if the environmental consequences of these technologies are valid and need to be precluded. The alternative to brown outs, blackouts and higher energy prices is to find and endorse alternative sources of energy; voluntary conservation is not making the mandatory difference.

A simplified, hypothetical example to illustrate this proposal:

- A city in the Northwest is served by an REC where 100 of the local families each invest \$100 to establish their Community Energy Garden. This is underwritten by the REC and/or city. Benefitting from the use of local/state/national models for engineering, permits, logistics, legal and construction requirements, they install their system.
- Reinvesting the immediate and near term realizable incentives, credits and rebates the NW City Community Energy Garden ends up with a 10 kW system installed on the roofs of the schools, library, police and city hall buildings.
- Each month the meter reads the amount of electricity provided by the NW City Community Energy Garden to the local REC distribution grid. The amount generated is divided by shares and applied to the individual families' accounts as a credit which they see on their monthly statement.

Since this example takes place in the Northwest, maximum electricity is produced by the cooperative's system in the summer. Distributing and consuming that power via the local network enables 10 kW generated elsewhere to be available for other cities and loads. The citizens who end up consuming that power will end up paying the peak load rates unless they also organize and establish their own Community Energy Gardens.

The potential advantages of Community Energy Gardens could outweigh any difficulties and objections against their installation. In any case, their discussion may reveal other, better alternatives to the status quo. We all want the lights to come on when we flip the switch. We have always wanted the electricity to be provided at the lowest possible price. It is paramount that we realize the total costs are more than monetary and do something collectively about it.

In Vernonia – Did You Know?

- You can get balloons, full time florist items, and house plants at Creatures?
- That you can buy a tire repair kit for your car at Bridge Street Mini Mart?
- Buckleberry Cottage has baby gifts. Buckleberry Cottage and Out on a Limb also offer Private Parties - after hours.
- You can get life insurance, retirement, annuities and long term care insurance in Vernonia by calling New York Life rep. Jim Presley 503-429-0747.
- Our local Pampered Chef representative can also run Nike Campus Tours. Just call 503-816-9810
- You can get services such as underground utilities, new driveways and repairs, septic systems, ditches, drains, building demolition, and foundation excavation by Robert Watts Construction?

Just a reminder of services offered in Vernonia brought to you by the Vernonia Area Chamber of Commerce 503-429-6081.

New Hours for Flood Recovery Assistance

Columbia County Flood Recovery Center:

(503) 429-4948

Mon., Tues. 11 a.m. – 4 p.m.

Wed. 11 a.m. – 7 p.m.

Thurs., Fri., Sat. 9 a.m. – 4 p.m.

Closed Sunday

Waste Management Transfer Station:

Saturday Only 10 a.m. – 4 p.m.

Lincoln Grade School Distrib. Center:

Mon.- Sat. 9 a.m. – 5 p.m.
Will be closing March 29th

Vernonia Cares Food Bank

Tues., Thurs. 10 a.m. – 2 p.m.