

Smart Energy Investments

- Energy Efficiency
- Renewable Energy
- Resiliency

Our Community Solar Thoughts... Adding Potential Agri-volts Opportunities!

1. Community Solar Land Use Strategies – LONG TERM VIEWPOINTS ... LIKE MARRIAGE!

- IT'S ALL ABOUT YOU! How much land is "enough" to offer for optimizing your Returns?
- Kind of like a Marriage: Review "Prenuptial" and "Divorce" and "Maintenance" issues
- Check and Recheck References and Experience of Proposers
- Contract Reviews

 YOUR Attorney should be involved!
- Projects MIGHT take 2 3 YEARS to obtain approvals
- Your PLANS: Can you afford to "give up" 10 or more acres of your productive land?

2. COOL Solar Strategies Emerging! Multi Tasking with "Agri-Volts"

- Solar Structures may cost more in design/building for "Agrivolts" Projects.
- Provides "multi-tasking" benefits for your Farm
- May not be "scalable' yet.

MULTI-TASKING = some AGRI-VOLTS CONCEPTS

 Requires Pollinator-Friendly Landscape Plans: Maryland Department of Natural Resources (DNR) Certifications

- 2. Supports Bees & ...Butterflies
- 3. Supports Honey Producers
- 4. Potential Soils and Environmental Improvements in Long Run Erosion Stabilization
- 5. Need to add Costs of Landscape PLANS and Seeds?
- 6. May reduce costs of area maintenance/mowing "inside the fence" /around Solar Panels.

(Image: FreshEnergy)



MORE AGRI-VOLTS CONCEPTS = NEW OPPORTUNITIES & MARKETS!

Colorado "Solar Gardens"

(photo right with kale, Swiss chard)

Argonne National Laboratories

STUDYING LONG TERM ENVIRONMENTAL BENEFITS On SOILS, Pollinator-Optimization Strategies



MORE AGRI-VOLTS CONCEPTS = NEW MARKETS!

SOLAR infrastructure customized (and will cost more) for growing certain SPECIALTY CROPS (maybe even commodity crops) versus simply producing electrons!

Some crops thrive in partial shade (lettuce, leafy greens, tomatoes, corn)

(Projects in South Korea, Africa) (Would this work in Maryland???)

Image: Sheffield University (UK)



MORE AGRI-VOLTS CONCEPTS = NEW MARKETS!

SOLAR infrastructure customized (and will cost more) for providing SHADE for GRAZING Sheep, etc.

Dual-Use Land ... Generate Income while Supporting Livestock Options.

(Image: Ithaca, NY 30-ACRE Project -- Sheep keep the grass mowed!)

Would this work in Western Maryland???



Other Ways for Farms and Rural (Small) Businesses to Improve Profitability:

- Save Every Month Make Cost-Effective Energy Efficiency Improvements
 Whole Farm or Business Energy Audits (May be NRCS now?)
 Potomac Edison has Energy Savings Incentives
 US Department of Agriculture Rural Energy for America (REAP) Grants up to 40%
 Maryland Energy Administration (MEA) has Commercial/Industrial/Agriculture Grants
 You can sometimes "STACK" all three grant-sources!
- 2. Size a SOLAR SYSTEM just to offset all the electricity used at your FARM(S) and Homes. Use Roofs and Non-Performing Agricultural land First (Former Manure Pits?) US Department of Agriculture – Rural Energy for America (REAP) Grants up to 40% Maryland Energy Administration (MEA) has Solar Incentives There are other Incentives (Tax Credits and Solar Renewable Energy Credits) that a good Solar Developer will explain to you.
- 3. Add a "Resiliency" option to reduce seasonal peak-costs and ensure reliability.

Smart Energy Investments

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- Independent Non-Profit
- Educational Programs
- Decision Support
- Vendor Neutral
- Non-Partisan
- Technology Agnostic
- Grants/Incentives
- Advocacy: Rural Small Businesses, Farms & Communities

