Welcome to SolarTimes!

McCune Expects to Double Growth in Coming Year

by Sandy LeonVest

On behalf of McCune Solar Works and One World Co-op, I’d like firstly to welcome our readers to SolarTimes. As the new communications director here at McCune, I’d like to also say how pleased I am to be counted among this extraordinary collective of people, and to be introducing what we are sure will be a one-of-a-kind company newsletter/newspaper.

One of my duties as communications director is to serve as editor of SolarTimes, a role with which I am quite familiar, having founded and edited its predecessor, SolarTimes (www.solartimes.org), from 2006 through 2013, boasted a circulation of nearly 20,000, and was the inspiration for this newsletter. As with the newsletter, it was never intended to be a mere promotional tool.

Here at McCune, our goal -- incorporated into our masthead motto above -- is to make a huge difference with a small footprint. Toward that end, our vision is uniquely different than that of a traditional industry or trade magazine.

While, of course, we believe in, and hope you will consider buying our products, SolarTimes’ primary purpose has never been exclusively that of product promotion. We were then, and will continue to be, a uniquely Big Picture publication, covering everything from climate change to breakthrough battery technologies, while connecting the dots between energy (green and not-so-green), the economy, the environment and human rights.

Our focus includes what we call “Energy Democracy,” a term we use to define renewable energy (RE) owned by the producer of that energy -- whether a home rooftop system (PV array), a community-owned hybrid system or one powered by a microgrid -- and generated at or near point of use, known as Distributed Generation (DG).

The vision here at McCune -- and that of our new newsletter -- is all about transformation and creating a new energy model. So, it’s a perfect fit with that of the original SolarTimes. We’ll be using the term “transformation” a lot in future editions of SolarTimes. By transformation, we mean people transforming themselves from the role of mere “consumers” into “producers” of their own essential resources -- from growing your own organic food to generating clean, renewable power.

At McCune, we understand that the 21st century will necessitate an entirely new energy and consumption conversation -- and an entirely new kind of environmentalism. We further understand that the converging environmental/resource/economic crises will mean turning away from the current cultural/economic paradigm -- essentially a “kill and consume” model.

In coming issues, we hope to share with our readers, step by step, the specifics of how such a transformation can be realized. Moreover, we’ll be providing you the tools and resources to begin making that transformation a reality.

You won’t find too many businesses (if any) who encourage less consumption -- especially when it comes to whatever product that business is selling. But at McCune we understand that to consume renewable energy is not nearly as important as consuming less energy.

We welcome letters to the editor! Send to: solartimeseditor@gmail.com

BOYCOTT ECOCIDE

We’re Not Buying it!!

Boycott Ecodecide

Conserve 20% of All Consumption

As CEO of McCune Solar Works, I’m pleased to join editor Sandy LeonVest in welcoming readers to SolarTimes.

We believe that as you come to understand the culture here at McCune and One World Co-op, you’ll also come to appreciate that our business model is uniquely in line with these challenging environmental and economic times. Our PV Production Engineer Mark Mitchell may have best described this phenomenon when he observed recently that at McCune, “we create opportunities where none previously existed.”

Those opportunities are embedded in our relationships with customers and co-op members. And that’s only one reason we expect our company and coop to double its growth in the next year as we help people begin to realize -- and take back -- their own power.

“...opportunities where none previously existed.”

-- Mark Mitchell, McCune Solar Works PV Production Engineer

For instance, we understand that people of limited means often cannot afford solar PV and battery storage. At McCune, we make these systems more affordable to those who may otherwise be unable to attain energy independence, while One World Co-op offers monthly workshops in conservation, solar PV, battery technology and all things energy.

Sure, we believe in what we’re selling and, like any other company, we’d like you to buy our products. But more importantly, we are long standing environmental activists, and as activists, we advocate for the elimination of ecocidal energy production.

Our primary goal, therefore, is to help customers cut their consumption. We want our community and our clients to challenge the current ecocidal energy model and to learn how to boycott ecocide. And, given the opportunity, we’ll show you exactly how to participate in this endeavor. In doing so, you will not only increase your own personal economic stability, but you’ll be promoting green living and global sustainability.

Toward that end, we don’t want (or need) to sell you anything but essentials. We’re acutely aware that, while the footprint of solar is far smaller than that of energy produced from nuclear/fossil fuels (and without the inherent calamity of ongoing environmental degradation), the manufacturing of solar PV and battery storage has its own environmental footprint.

We invite you in the coming months, to learn more about McCune Solar Works and One World Co-op, a worker-owned community coop modeled after Mondragon and Albuquerque’s La Montanita Food Co-op, as you join us in our efforts to create a future sustainable world.

www.mccunesolarworks.com
www.oneworld.coop
Obama Unleashes 21st Century Nuclear Arms Race

The following report, authored by Greg Mello, director of the nuclear watchdog organization Los Alamos Study Group, has been edited for brevity.

This is a time when official Washington and its legions of lobbyists are highly conscious of the fact that the Obama administration is nearing its end. For its part, the nuclear weapons industry is working to keep Obama’s pro-nuclear-weapons legacy intact, set in place new programs and funding commitments where possible and absorb those commitments already made — and, through it all, renew ideological commitments and indoctrinate fresh faces throughout the privatized nuclear enterprise and its thin governing structures.

Los Alamos Study Group (LASG) and others are pulling in the opposite direction.

The central ring in this circus is the annual budget process. In early February, the Administration submitted its penultimate nuclear weapons budget to Congress, for fiscal year (FY) 2017. Meanwhile and in parallel, the Administration is developing the FY18 budget. It will be one of the final ways for this President to put a stamp on his nuclear weapons policy legacy.

Over two terms, Obama has retired fewer warheads than any post-Cold War president. In both absolute and relative terms, and he has launched a comprehensive effort to modernize everything in sight — the nuclear enterprise and its thin governing structures.

These current and planned investments, along with other developments, are stimulating a new nuclear arms race with Russia and China. They are also visibly undercutting US nonproliferation goals.

“Four FEMA Regions (Regions IV, V, VI and VII) were involved in the New Madrid Seismic Zone (NMSZ) scenario workshops. The four FEMA Regions include Illinois, Indiana, Kentucky, Tennessee, Alabama, Mississippi, Arkansas and Missouri.”

The report indicates that Tennessee, Arkansas, and Missouri would be most severely impacted by an earthquake in the region. Illinois and Kentucky would also be impacted, though not as severely as the previous three states.

Nuclear Nonproliferation Treaty (NPT).

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“We are not ready for the Big One.”

The political bargain for ratification of New START by the US Senate kick-started, and is the principal political basis for, the vast modernization effort now underway. New START has not constrained — in fact it has unleashed — today’s nuclear arms race. The New START process greatly muted criticism of modernization in and around
LiFePo4: Everything You Need in a Battery
Lithium Iron Phosphate (LiFePO4) v Lead Acid Batteries
A comparison/reality check ...

1) The LiFePO4 battery is one-third the weight of the Lead Acid battery of similar capacity, and about one quarter of the volume.
2) The LiFePO4 battery can be charged and discharged 2000 to 7000 times at 100% DOD (depth of discharge) and still retain as much as 80% of its original capacity. The Lead Acid battery retains only about 60% of its original capacity after as few as 500 cycles.
3) The LiFePO4 battery is completely sealed and gives off no gasses during charge or discharge. Most Lead Acid batteries give off flammable hydrogen and acidic steam under most conditions, requiring careful ventilation.
4) LiFePO4 batteries require no maintenance. Lead Acid batteries require regular checks of the density of the electrolytes and additions of fluids.
5) The voltage of a LiFePO4 cell is 3.5 volts, while a Lead Acid cell is 2.0 volts.
6) The available discharge rate in amperes for a LiFePO4 battery is twice that of a Lead Acid battery.
7) LiFePO4 batteries work very well at -20 degrees C., and can discharge at 90% of rating even at -40 degrees C. Lead Acid batteries, however, can only discharge less than 60% at 0 degrees C.
8) The shelf life of a LiFePO4 battery is much longer than a Lead Acid battery. Typically a LiFePO4 battery will lose less than 1% of its charge per month, while a Lead Acid battery will typically lose 15-20% of its charge per month.
9) LiFePO4 batteries have no memory, and can therefore be recharged at any point in the discharge cycle. Not true for Lead Acid batteries.
10) LiFePO4 batteries contain no toxic or hazardous materials, and none are used in its manufacture. Not true for Li ion, Nickel Cadmium or Lead Acid batteries, which contain cobalt, mercury, lead and cadmium, plus corrosive acids.
11) While LiFePO4 batteries are more expensive than Lead Acid batteries, fully considering the above advantages makes LiFePO4 batteries less expensive for stationary storage of electrical power.

We Ship Anywhere!
Order the LiFePO4 today, via phone or email:
Phone: 505 242-2384 or call our toll-free line: 866 622-8630 or email: mccune@mccuneworks.com

Put the Squeeze on Bad Energy
At McCune Solar Works and One World Co-op, we aggregate high quality materials/methods and our own proprietary technology into long lasting, safe and affordable product solutions to energy production and green living.

One World Co-op Store:
A member buying club with available emergency/mitigation products, green living products and a wish list for accumulating group purchasing on specific product requests. (More information at www.oneworld.coop)

Products include:
• Parallel/Off-grid, Stand-alone PV Production System
• LiFePO4 Battery System
• Step by step Do-It-Yourself (DIY) instructions, or use one of our recommended certified installers

Services include:
• Lay away Plan
• Financing options
• Incremental buying of Energy System components
• Planning Assistance
• Plan your time of day consumption
• Plan location of energy production and configuration
• Plan to be without grid power
• Plan for energy sovereignty, in your home and community
• Interactive energy calculator
• Local Activism
• We give you the tools to set an example with your own conservation practices;
• We’ll help you interact with your local government official and regulators;
• We supply free document templates for local micro-grid creation and state filing;
• By joining One World Coop, you’ll be promoting the concept of local cooperatives;
• We encourage you to support your local farmers, grocers, solar companies, book sellers, and any locally owned businesses and non-profits;
• We’ll help you learn about microgrids and community-owned energy production;
• Members of One World Co-op participate in funding and income from all community power cooperatives planned by One World Co-op
• One World Co-op will help any community or neighborhood to form their own Power Cooperative.

ONE WORLD CO-OP
Spring, 2016
Meet the Family

Chuck McCune  
CEO

Dr. Chuthamard McCune  
President

Elle McCune  
Boss of Bosses

Kanokon Tungdeeteesud  
CFO

Maxim Rice  
Electrical Engineering
Meet the Family

Keenan McCune
Web Design, Marketing

Mark Mitchell
PV Production Engineer

Testing batteries in the factory

George Schardon
Robotics Engineer/Production

Sandy LeonVest
Communications and Marketing Director
Fossil Follies: Editor’s Pick:
Natural Gas: A Bridge to Disaster

SoCal Methane Leak
One of Many

Just as the Gulf Coast disaster energized opposition to offshore oil drilling, the methane leak at Porter Ranch could spell big trouble for natural gas by exposing the Big Lie about its reputation as clean, safe and climate-friendly ...

Against the backdrop of NASA’s most recent climate report confirming February, 2016 to be the hottest February in climate history (by a long shot), the massive methane leak at SoCal Gas’s Aliso Canyon gas facility near Porter Ranch, California, which began in October of 2015 and was not contained until March, 2016, is a wake-up call of the deadliest kind for anyone concerned about a “clean energy future” -- or, for that matter, any future at all. A wake up call, not just because of one highly publicized methane leak which sent residents of a wealthy community in Southern California fleeing for their lives, but because what happened there is happening now -- at gas facilities all over the country.

Methane is a greenhouse gas 25 times more potent than CO2 at disrupting the climate over a 20-year period. Methane seepage can occur at all stages of oil and gas production -- from leaks along the more than one million miles of domestic pipeline to intentional “burn-offs” at the hundreds of thousands of production sites that dot the American landscape.

Hydraulic fracturing or fracking during the extraction process also leaks methane, and that practice is occurring at hundreds of sites throughout the US. Back in 2014, a Stanford University study estimated that methane emissions at the time were likely 50 percent higher than official EPA projections, and research published last year found that the technology that EPA and others use to measure emissions may itself be flawed, and the amount of methane leaking into the atmosphere is likely “systematically underestimated.”

Events of this size are rare, but major leakage across the oil and gas supply chain is not. Director of Environmental Defense Fund’s California Oil & Gas Program Tim O’Connor told reporters earlier this year. “There are plenty of mini-Aliso Canyons that add up to a big climate problem — not just in California, but across the country.”

Methane supply can leak at all stages of oil and gas production — from leaks along the more than one million miles of domestic pipeline to intentional “burn-offs” at the hundreds of thousands of production sites that dot the American landscape.

Natural Gas: A Bridge to Disaster

Natural gas is a climate-wrecking, money-losing bridge to ecological and economic collapse.

U.S. Methane Emissions, By Source


SoCal Methane Leak
One of Many

Natural Gas and Petroleum Systems

Marine Management 29%

Coal Mining 1990 - 2013

Landfills 26%

Enteric Fermentation

Other 8%
Boycott Dirty Energy

Guide to reducing power consumption:

- Use LED Bulbs
- Shut down A/C whenever possible and/or limit to smaller part of home
- Don’t use dishwasher
- Limit clothes dryer usage
- Avoid purchasing products with excessive packaging
- Combine errands when driving
- Keep backup disaster food to eliminate running to store
- Grow an organic garden if possible -- and compost
- When baking cook more than one thing while oven is on
- Unplug phone chargers and other phantom loads when not in use
- Use power strips to disconnect multiple phantom loads
- Use vacuum carafe for coffee and shut off coffee maker after brewing
- Shuttle down computer when not in use
- Install solar — even if only small charger panels for phones, computers etc., use solar garden lights - bring in at night
- Don’t buy plastic bags for food storage
- Buy in bulk when possible
- Don’t eat meat, especially factory farm meat, (huge greenhouse gas/water problem)
- Don’t buy anything you don’t need!!

TAKE BACK THE POWER!
TRANSFORMATION BEGINS HERE:

2013 Average Monthly Bill - Residential

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<th>Number of Customers</th>
<th>Average Monthly Consumption (kW-h)</th>
<th>Average Price (cents/kWh)</th>
<th>Average Monthly Bill (Dollar and cents)</th>
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<td>1,650,003</td>
<td>976</td>
<td>9.90</td>
<td>90.56</td>
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<td>Washington</td>
<td>2,883,006</td>
<td>1,041</td>
<td>8.70</td>
<td>90.55</td>
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<tr>
<td>Pacific Noncontiguous</td>
<td>699,661</td>
<td>651</td>
<td>28.54</td>
<td>160.32</td>
</tr>
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<td>Alaska</td>
<td>277,275</td>
<td>633</td>
<td>16.12</td>
<td>114.56</td>
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<tr>
<td>Hawaii</td>
<td>422,365</td>
<td>515</td>
<td>36.98</td>
<td>190.36</td>
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<tr>
<td>U.S. Total</td>
<td>127,892,182</td>
<td>909</td>
<td>12.12</td>
<td>110.20</td>
</tr>
</tbody>
</table>
Interactive Energy Calculator

(Use for analyzing consumption and planning for conservation.)

- Enter the number of each appliance used in number column.
- Enter number of hours each appliance used in either/both day and/or night hours column (Use decimals for usage under an hour -- i.e. 15 minutes = .25).
- Graphs and totals populate as data is entered.
- Graphs indicate categories of usage/consumption and day/night usage -- helpful for sizing PV arrays and battery storage.

* On-line version does not save. Members can download a working interactive model (requires spreadsheet program). Totals are in Day /Night, Daily and Monthly KWH usage.