

The Town of Fenton Planning Board held a meeting on Tuesday, June 28<sup>th</sup>, 2016, at 7:00 pm, at the Fenton Town Hall, 44 Park Street, Port Crane, New York.

**PRESENT:** Planning Board Members                      John Eldred, Chairman  
   Richard Armstrong, Board Member  
   James Keough, Board Member  
   Patrick Mullins, Board Member  
   Thomas Standard, Board Member  
   Tina Fernandez (Hinman, Howard & Kattell)  
   Richard Bassler, P.E.  
   Melodie Bowersox  
   Legal Counsel  
   Town Engineer  
   Town Clerk

**ABSENT:** Planning Board Member                      Brian Randall, Board Member

There were 9 Residents present at this evening's meeting, including Town Board Member Gary Holcomb, Conservation Advisory Committee Chairman André LaClair, Conservation Advisory Committee Members Patricia Podrazil and David Sterling, and Zoning Board of Appeals Member Michael Ward.

**MINUTES TO APPROVE**

The Planning Board Members were either mailed or emailed the minutes from the Planning Board Meeting held on April 26<sup>th</sup>, 2016. With no corrections to be made to the minutes from the April 26<sup>th</sup>, 2016 Planning Board Meeting, **Mr. Keough made a motion to approve the minutes**, seconded by Mr. Mullins. **Motion carried.**

**VOTE:** Ayes 5 Armstrong, Eldred, Keough, Mullins, Standard  
   Nays 0

**OLD BUSINESS**

**120' Pole on Route 7B** – Mr. Keough asked if there was any new information regarding the 120' Pole that was to be installed on Route 7B. Mr. Eldred said there is no new information on the pole.

**Kark Recreational Vehicle Park** – Mr. Keough also asked if there was an update on the Kark Recreational Vehicle Park. Mr. Eldred replied that there is no update; the applicant has not applied for a permit yet.

**NEW BUSINESS**

**Gay Canough, CEO of ETM Solar Works – Guest Speaker** – Gay Canough, CEO of ETM Solar Works, presented a PowerPoint presentation entitled, "Solar Power to the People," which included solar data information and charts. Gay started the presentation by giving information on her employment background prior to becoming the President and Founder of ETM Solar Works. The Solar Industry has grown enormously over the years; in fact, right now 85,000 New Yorkers are employed in the clean energy business which includes energy efficiency, wind, and solar. Further highlights of Gay's PowerPoint presentation included:

- Solar energy is a growth industry; it is growing jobs five times faster than other sectors.
- Job growth in solar has been 20% per year for the last three years (compared to the overall job growth which is about 2%).
- The installed capacity of solar is set to double in 2016 (over 2015).
- New generation: Solar surpassed natural gas of new power plant installations!
- 76% of solar jobs are installers; ETM Solar Works installs and designs.
- The solar resource: or...why solar will be a growth industry for a long time! There is 1400 times more solar energy falling on the earth than the entire civilization's use of energy.
- 30 year average of solar insolation (kWh per sq. meter per year):
  - San Diego, CA.....2044
  - Phoenix, AZ .....2336
  - Syracuse, NY .....1533
  - Binghamton, NY .....1496
  - New York City .....1642
  - Seattle, WA .....1387
  - Ottawa, ON.....1484
  - Sunniest Place in Germany...1250 – World leader in use of solar energy!
    - Seattle gets 60% of the amount of sun that Phoenix gets.
    - Binghamton gets 73% of the amount of sun that San Diego gets.
- .07% is the area of earth's land it takes to power the whole planet with solar cells.
- Solar cells are made from silicon – the second most common element on earth.
- What does it cost?
  - In 1977: \$76.67/Watt
  - In 2013: \$0.74/Watt
- Anatomy of a solar electric system: Gay provided samples of photovoltaic modules and micro inverters for the audience to look at; she also provided slides in the PowerPoint presentation of the modules and inverters.
- Net Metering: extra solar power goes back into the utility grid and the customer receives credit for it at the retail rate; thus, a battery bank is not required.
- How to calculate a system to power:  
load in kilowatt-hours per year/(full-sun-hours/year x system efficiency)
- Planning and Permits: The Town may require a site plan, wiring diagram, spec sheets, and/or a letter from an Engineer for the solar project.
- Typical flush roof-mounts include aluminum rails and flashings that go up under the shingles; the flashings have a sealed block and a lag bolt that also go into a rafter for wind loading purposes. (Tilt-up roof-mounts can also be done.)
- Set-backs for firefighters is a concern but the rules on this are not finalized yet. An 18" pathway on two sides of solar array is recommended. Gay also commented that if there are micro inverters on the roof, there basically is no high voltage on the roof. If there are string inverters and there is 'life', there is 350 volts DC on the wires under the panels. In this case, the best thing to do is to cut the wires (a rapid shut down will not solve the issue).
- Available solar systems:
  - flush mounted – most common
  - ballasted

- ground mounted – for those whose roof is unshaded or is not large enough for panels but may have a yard where a pole-top or cantilever ground-mount may be placed; zoning usually involves type of use (residential, commercial, industrial), set-backs from property line (3-10'), and height.
- Large solar projects typically serve one large user, serve 10 or more smaller users, and/or sell power to the utility (like any other power plant); there are not many places in New York that have the capacity for a utility scale system because they require five acres per MW.
- Shared Solar Projects and Site Selection:
  - Is it relatively flat?
  - Where are the power lines? Are they 3-phase?
  - Is this on the flood-plain?
  - Does the owner get tax-breaks for agricultural use?
  - What's the zoning like?
- Shared Solar Projects have multiple users who may contract for 25 years of power from part of the system and pay per kWh (PPA – power purchase agreement).
- Property Tax Exemption – currently there is a fifteen year property tax exemption for those with solar energy systems. The way the NYS Property Tax Exemption Law 487 is written, Towns can opt out of it, but solar energy developers are trying to encourage Towns not to do this because it hurts the small solar customers (homeowners) and it discourages the growth industry. If Towns would like large projects to pay some tax, they could pass a resolution to negotiate a PILOT (Payment in Lieu of Taxes) for projects larger than a certain size.

A question and answer session followed the presentation.

- Upkeep and repair of panels? Because we have a lot of rain in the area, the panels stay clean.
- Average life of the panels? They come with a 25 year warranty.
- Snow? Snow in this area accounts for a loss of about 5% on a system. Snow accumulation? Leave it on the panels; do not get on the roof to sweep it off. Gay has not seen any problem with accumulation of snow underneath the panels.
- How does it work? Basically your energy system is working in sync with your utility power. When you have sun and you are cranking out solar electricity, it feeds into your loads, but if you do not have sun, then utility automatically feeds your loads.
- What happens if you are having your roof redone? The panels will have to be removed and put back on.
- Net Metering was discussed.
- Have there been any studies in regard to property assessments in relation to retail values of homes, like a neighbor does not want to sell his house because a neighbor has put solar mounts in his backyard? Most of the studies come from California and New Jersey of roof mounts which show they do increase home values.
- On a ground mount system, is there a minimum efficient size and what is a normal height? How much of the property do we allow the homeowner to convert to energy production? They do not size a system that serves more than 110% of the load. Usually people who have big loads have big yards. Most systems are probably 3 or 400 square feet in size on the roof. On the ground, pole mounts are 15'x15' in size; 10' tall

in the middle; the top ends are usually 15'-17' off the ground. For net metering, the optimal angle is 25 degrees slope. Pole mounts can be adjusted.

- Voluntary agreements between neighbors may be a helpful tool with solar systems.
- What grant incentives are available for those interested in purchasing solar systems?

The following three reduce the cost by about 40%:

- NYSEERDA from the State which is a discount right off the top
- Federal tax credit which is 30% of the system cost
- State tax credit of 25% up to \$5000

Also, there are special financing options that include loans and leasing.

- Any problems with installation on steel roofs? No.
- For the ground mount, what is the typical size area needed? There is no typical size. People should be able to get by on 5000-7000 kilowatt hours/year and the size to run that is 400 square feet. If there is space on your roof and it is not shaded, it is going to be cheaper to put it on the roof.
- How do you know which panels to choose and which manufacturer to go with? Gay suggested choosing panels from manufacturers that have been around for a while, such as Kyocera and SunPower. She also suggested considering the longevity of the installing companies when looking at a solar energy project.
- Are there more incentives for municipalities than for residential customers? On and off; this varies throughout the years.
- Are you finding any of the municipalities adopting rules and regulations that supersede the NYS Building Code, and are the Towns actually adopting and having their Building Inspector inspect the installation of these? There is talk about doing this but to Gay's knowledge, no one has actually adopted rules and regulations to supersede the NYS Building Code yet. Some Building Inspectors are inspecting the installation of the solar systems. Gay suggested they inspect the roof attachments at the time of installation.

**Town Engineer Retiring** – Mr. Armstrong acknowledged that Dick Bassler, Town Engineer for the past ten years, is retiring, effective July 1<sup>st</sup>, 2016. Mr. Armstrong told Dick that he has appreciated all his efforts with the Planning Board and with the Town; Mr. Eldred thanked him on behalf of the Planning Board. Mr. Holcomb said that the Town Board has interviewed five Engineering Firms and that Mr. Armstrong, Assistant Town Engineer, will be still be available one day a week to assist with engineering questions/matters.

At 8:19 pm, **Mr. Keough made a motion to adjourn the meeting**, seconded by Mr. Armstong. **Motion carried.**

Melodie A. Bowersox, Town Clerk