



**Town of Rush
Energy Advisory
Committee**

Town Board Presentation

May 25, 2016

Committee Members

Bethany Choate

Matthew Heimbueger

Kathryn Hankins

Beth Hoak

Carolee Powers

Robert Powers

Marianne Rizzo

Harvey Seymour

Acknowledgements

Rita McCarthy, Town Board Liaison

Donald Reynolds, Finance Director

Bob Kanauer, LTHS Solar

Shawn Lessord, Ken Olsen, Renewable Rochester

Mayor Paul Gee, Village of Scottsville

Owen Macintee, Electrical Supervisor, Spencerport

Andrew Heiligman, A.C.E.S.-Energy

John Conklin, Matt Vanderbrook, Kevin Schulte, Sustainable Energy Developments, Inc. (SED)

Floyd Bayley, Lane Young, O'Connell Electric

Seth Sykes, Facilities Manager, Rotary Sunshine Camp

James Hoffman, former Supervisor, Town of Williamson

Charlie Johnson, Lima and Honeoye Falls Building Inspector



Committee Goals

- Reduce use of fossil fuels.
- Improve energy conservation in all town activities.
- Reduce energy use by conversion to more efficient alternatives (e.g. conversion to LED Lights)
- Convert to solar for town's electrical needs.
- Reduce costs to taxpayers for utility needs.
- Promote renewable energy solutions as opportunities arise (e.g. geothermal, solar, wind)
- Be responsible stewards of the environment.
- Safeguard our farmland and small town rural landscape (e.g. locate solar on unusable or reclaimed land)

Committee Research and Activities

- Meet with Engineers and Vendors
- Visit solar installation sites and meet with directors
- Research other communities in Monroe, Livingston, and Ontario Counties, and other areas of NYS
- Investigate NYSERDA Incentives
- Research on zoning to support renewable energy and appropriate land use in rural and residential areas.

WilliamSUN
Solar Field



ROCHESTER ROTARY

Sunshine

C A M P U S

WHERE KIDS HAVE NO BARRIERS TO FUN

has gone

Solar



Highlights of Report

- History and background of committee
- Committee activities
- Findings
- Recommendations
- Potential of public-private partnership

Many Factors

- Impact of Conservation and Energy Savings
- NYSERDA Incentives
- Finance Options
- Vendors
- Materials
- Utility cost fluctuations
- Roof mount vs ground mount solar
- Solar installation output
- Ongoing maintenance

Findings include...

- Purchase Power Agreement (PPA) not economically feasible for Rush.
- Direct purchase hybrid plan (public and private partnership) lower costs and ensures cost-neutrality for taxpayers and earlier pay-back time but cost/pay-back still too high
- Need to find ways to reduce demand fees.
- Battery systems currently being tested - expected to be available in 3-5 years.
- The battery system would mitigate the demand charge.

Demand Charges

- The four major accounts qualify for Demand metering (kw) in addition to Use metering(kwh).
- A Demand meter is to offset cost of infrastructure needed to supply the higher level of energy.
- Demand is a delivery charge. Net Metering only applies to supply.
- Demand charges are about 50% of the bill.
- Demand can be minimized, possibly eliminated.
- An Energy Analysis Consultant can identify the causes of Demand and suggest mitigation.

Solar Plan Proposal**

- Collaboration: Fire Department, Town Hall and Highway Department
- Roof top panels more desirable – less impact on limited land; reduce risks.
- Multiple phase compared with single phase
- Partnership with NYSERDA, and private company to provide consultant and engineering services and eligible for incentives.
- Direct purchase of solar panels and other materials.
- Installation costs reduced with partnership with Highway Department.

**** *after Utility Demand Charge is resolved***

Recommendations

1. Collaboration with Highway Department and Fire Department
2. Establish and Energy Capital Reserve Fund
3. Develop a Finance Plan.
4. Develop Energy Conservation Plan
5. Implement Plan for Solar Installations
6. Become a Climate Smart Community
7. Educate and Engaging the Community
8. Amend Comprehensive Plan
9. Amend Zoning Code
10. Standing Energy Advisory Committee
11. Set a Timetable for Action

Highlights of Recommendations

1. Collaboration with Fire Department, Highway Department.

- Location of roof-mount solar
- Reduce Labor
- Maintenance

2. Establish an Energy Capital Reserve Fund.

- Capture cost-savings
- Reduce cost of loans for solar installations.
- Redirect funds from paying for energy costs to supporting self-sufficiency.
- Reduce expenses for taxpayers.

Recommendations

3. Develop Strategic Finance Plan to pay for conservation and solar energy projects.

- Ensure taxpayers are protected from increases and benefit from energy conservation activities.

4. Develop Energy Conservation Plan.

- Hire an energy analysis consultant
- Develop department level plans to reduce energy use.
- Reduce demand charge.
- Utilization studies.

5. Prepare Plan for Solar Installations when cost-effective.

Recommendations

6. Become a Climate Smart Community.

- Links to state partners: DEC, NYSERDA, DOH, DOS, PSC
- Updates on Incentives.
- Networking -- connect other towns across the state.
- Establish a strategic framework

7. Educate and Engage the Community.

- Ongoing education on the need to move toward renewable energy sources as a community and as a nation.
- Informed taxpayers promote improved decision-making
- Short term and long term impacts on taxpayers.

Recommendations

8. Update Comprehensive Plan.

- Protecting environmentally sensitive areas,
- Protecting farmland and open space.
- Promoting use of renewable energy sources.

9. Amend Zoning Code.

- Promoting solar for residential
- Defining appropriate criteria for solar farm siting.
- Ensuring the character of our community
- Protect residential neighborhoods

Recommendations

10. Standing Energy Advisory Committee

- Measuring success.
- Problem-solving.
- Promoting Conservation strategies.
- Assisting Town Board and staff in investigating other opportunities to use renewable energy (Geo-thermal)

11. Set a Timetable for Actions

Agreeing on an implementation plan critical for setting and achieving goals.

Action Steps include:

- Reduce the “utility demand charge”
- Prepare for Financial Plan:
 - Energy Analysis Consultant
 - Capital Reserve Fund
 - Low-Cost Loan for solar installation
- Forge Collaboration Agreements with Fire Highway Departments
- Support new zoning regulations
- Community Education & Engagement Plan
- Actively work with new Energy Advisory Committee

Future Vision

- Transition to solar for all electricity needs.
- Use of renewable energy sources for new town ventures.
- Consider geo-thermal option when boilers need replacement.
- Zoning Ordinances to promote solar for residential and commercial properties.
- Zoning to restrict commercial solar farms in appropriate areas that ensure protection and preservation of farmland and open space.

Wrap Up

- Remaining work for committee
 - Written Report
 - Compile to Appendix
- Public Q&A Session
- Article in next newsletter
- Transition to new EAC committee



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WORLD
unmodule