



Sullivan County Agriculture and Sustainability Policy Committee

August 1, 2013 AGENDA

2:30 PM

Committee Members:

Cindy Kurpil Gieger, Chair, Cora Edwards, Vice-Chair, Jonathan Rouis, Alan Sorensen, Kitty Vetter

Call to Order

Attendance

Reports:

1. Office of Sustainable Energy (OSE) Monthly Report- Carol Roig & Stephen Stuart
2. Agricultural Report- Jill Weyer
3. Update – DPW

Presentation: None

Discussion:

1. Planning/OSE Recommendations
2. Next Steps CFA Process/Funding Opportunities

Resolutions:

1. A Local Law of the County of Sullivan, New York Known as the “Hydraulic Fracturing Brine Prohibition Act”

Public Comment

Adjourn

OSE Activities Report for August 2013

Reporting on July 2013 activities

I. ENERGY MANAGEMENT FOR SC FACILITIES

Liberty wind project

- Sustainable Energy Development provided information of a new model of the Gamesa 2MW wind turbine, the G114. It has a larger swept area (rotor diameter) and an increased tower height). It would generate over 6 million kWh per year at the Liberty site and would achieve payback in just over nine years. See attached document.
- The one million dollar incentive from NYSERDA on wind machines up to 2 megawatts cannot be mixed with the potential Cleaner Greener Communities money from a CFA. The funding pool available directly from NYSERDA (PON 2439) is down to \$4,000,000.

NYPA Potential for Energy Retrofits

- Facilitated meeting on July 16th between Ed McAndrew and Kristin Porter of DPW and Ravi Shankar of NYPA (New York Power Authority) to discuss NYPA's programs for assessing, financing and overseeing construction for energy retrofits and upgrades.
- Focus of the meeting was HVAC rooftop units for Government Center and other energy efficiency measures. With Government Center as pilot project, what we learn from this process can be applied to other County facilities.
- NYPA provides a full service retrofit program, from site study to engineering to commissioning. NYPA funds the construction over an agreed upon time frame. Project costs are repaid out of the energy cost savings realized through the upgrades.
- Mr. Shankar provided a sample contract, which DPW has shared with the County Attorney for preliminary review.

Energy Storage and Smart Metering at Travis

- OSE has researched options for standby electricity utilizing the existing PV array at Travis.
- Battery storage and smart meters at the site would enable the County to store electricity generated by the existing 50kW solar as backup emergency power in case of a power outage, and could also enable the County to reduce the demand charge (for peak energy use) at the Liberty Health campus, which would reduce the cost of electricity at the site.
- Energy cost savings could be as much as \$2,000/month.
- Pat Pomeroy of Hudson Valley Regional Council has offered assistance to submit a proposal for NYS Hazard Mitigation funding for this component.
- A non-binding letter of intent describing the project is due August 1. Pat has consulted with Joe Sikora of NYS DHS to verify that these components would be a good match for the grant.
- The battery storage and smart meter components of the Liberty Project are important aspects of the project as featured as an example project in the Mid-Hudson Regional Sustainability Plan.

Liberty Health Care Complex/Innovative Energy District

- Work continues on refining this project, developing a schedule of implementation, action items, co-funding sources, project sequence.
- County can apply for NYSERDA and other funding for each component individually.
- Project aligns with the Mid-Hudson Sustainability Plan and Economic Development Plan.

LED lighting

Met with representatives of Winworks to hear presentation and proposal of LED lighting in SC facilities.

- Lighting data from the government center is being assembled to send to Winworks. Following advice from Acting County Manager Josh Potosek, OSE spoke with Kathy Jones to find how to frame this information so that it would meet the procurement rules of Sullivan County.

II. SC CLIMATE ACTION PLAN

- Continue discussions with Jill Weyer, Acting Commissioner of Planning, regarding scope of the Climate Action Plan its incorporation into an updated Comprehensive Plan for the County.
- Assisting Town of Bethel with drafting of their Climate Smart Communities Pledge.

SULLIVAN COUNTY HEALTH AND FAMILY SERVICES CENTER: WIND TURBINE TECHNOLOGY ADDENDUM

Sustainable Energy Developments, Inc. (SED) has developed a Technology Addendum to the *Technical and Economic Assessment for On-Site Wind Generation* performed for Sullivan County. After the completion of the Final Report the Gamesa G114 2MW wind turbine was made available to SED through their distribution network. The Gamesa G114 is of similar scale to the Gamesa G97 that was utilized in the original report. The advantage that this technology will provide to a Sullivan County project is a significantly higher annual energy production that will improve the already strong economics demonstrated through this report. The Gamesa G114 is an example of a general trend in the wind turbine industry towards larger rotor diameters which increases the energy production at lower wind speeds. Other manufacturers of wind turbines in this class, such as General Electric and Vestas, will also be bringing similarly sized wind turbines to the market in the near future.

This addendum details the wind energy production and economics of this technology at the proposed wind turbine location at the Health and Family Services Center and demonstrates the economic advantage it will provide to Sullivan County.

Figure 1: Wind Turbine Details and Annual Energy Production

Wind Turbine	Tower Height	Rotor Diameter	Total Tip Height	Net AEP
Gamesa G97	78m (256ft)	97m (318ft)	127m (416ft)	4,579,700 kWh
Gamesa G114	93m (305ft)	114m (374ft)	150 (492ft)	6,549,600 kWh

SED utilized the power curve provided by Gamesa to model the energy production of the Gamesa G114 employing WindPRO modeling software and the same wind data employed for the original wind resource assessment in the feasibility study. The Annual Energy Production of the G114 at the proposed location is 6,549,600 kWh. This is an increase in energy production of approximately 43% as compared to the G97. Due to the equal power capacity to the G97, an identical interconnection plan can be pursued. However, because of the increased size of wind turbine components, there will be an increase in capital costs for construction and for the wind turbine purchase price itself.

Baseline Economic Analysis

SED input the WindPRO production figure, as well as refined capital costs into the economic model. The unlevered results are shown on page 2 of this memo. This data corresponds with *Figure 9-1 Unleveraged IRR, Payback and Savings at Varying Energy Escalation Rates for One (1) Vestas 1.8MW* on page 9-2 of the Final Report. As this baseline analysis demonstrates, the use of the Gamesa G114 would result in a 2.7 year improvement over the Gamesa G97 in payback and a nearly 3% improvement in Internal Rate of Return.

Figure 2: Unleveraged Economics, IRR, Payback and 20 year savings for Gamesa G97 and G114

Turbine	Capital Costs	Payback	20 Year Savings	IRR
G97	\$5,191,500	12.0 yrs	\$3,378,000	5.4%
G114	\$6,400,000	9.3 yrs	\$6,751,000	8.2%

Financing Analysis

The Financing Section of the original report offered several financing scenarios. Further consideration and investigation has led the primary focus to be placed on a project financed by the County through a municipal bond. By employing the Gamesa G114 in this finance model, the 20 year accumulated savings would increase by \$1,497,000 over the Gamesa G97 and savings in Year 1 would be improved by \$134,000. The figures below are the results of economic models, showing the 1 Year and 20 Year Savings as well as the Net Present Value (NPV) for Gamesa G97 and G114. This Self-Financed model included a Bond Rate of 3% for 20 years. The model was run under multiple energy escalation rates of 0% to show the unlikely scenario of zero increase to energy prices over 20 years and 3.29% as the 10 year average energy escalation rate for News York State based on data from the US Energy Information Administration.

Figure 3: NPV, 1 Year and 20 Year Savings for Gamesa G97 and G114 models under Self-Financed

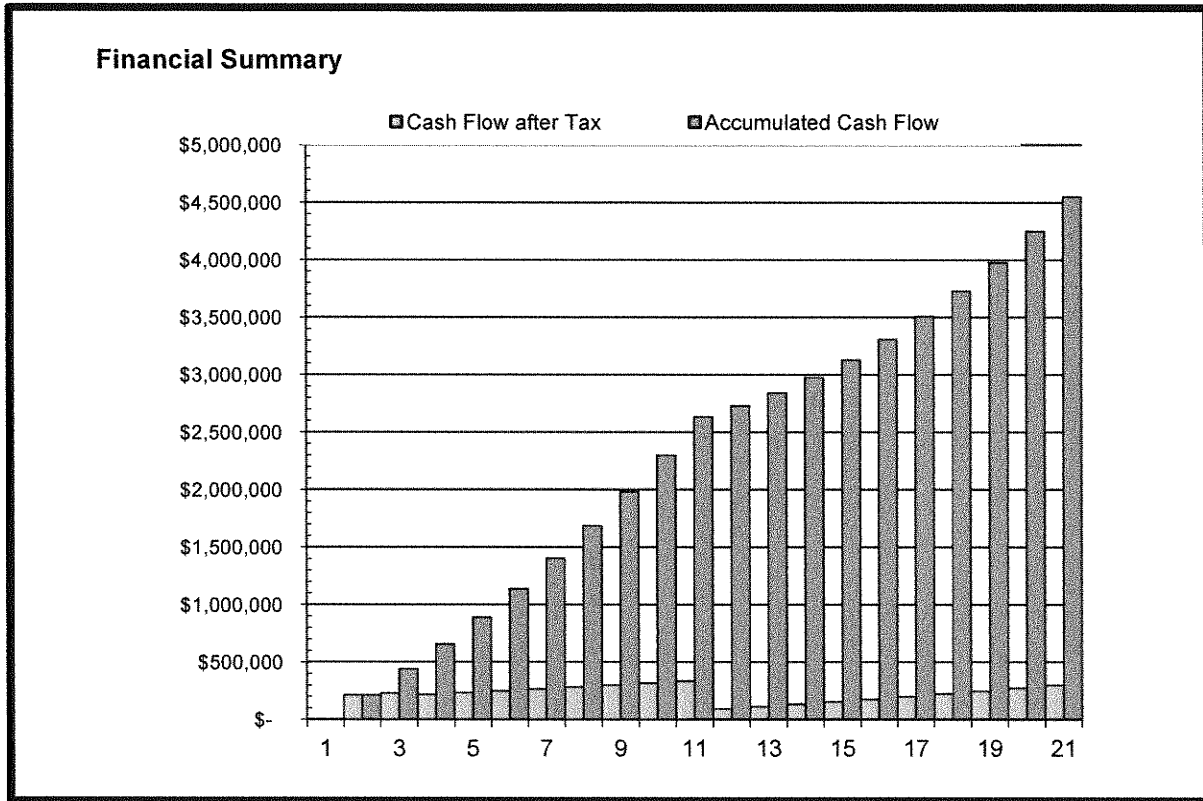
Gamesa G97

Energy Cost Escalation Rate	Year 1 Savings	20 Year Savings	NPV at 5.5%
0%	\$ 41,000	(\$ 1,512,000)	(\$ 552,132)
3.29%	\$ 76,700	\$2,066,000	\$1,243,000

Gamesa G114

Energy Cost Escalation Rate	Year 1 Savings	20 Year Savings	NPV at 5.5%
0%	\$194,200	\$104,000	\$575,000
3.29%	\$211,200	\$4,548,000	\$2,740,000

Figure 10-2 Cash Flow of Bond Financed Gamesa G114 with 3.29% escalation rate



Conclusion

Based on this analysis, SED recommends that Sullivan County consider this wind development employing the Gamesa G114 2MW wind turbine and that all tasks to be completed during the Business Planning phase are designed considering this technology in an economically strong project. Employing this technology will not significantly alter any of the findings of the Final Report or the recommend development path. SED will continue to update Sullivan County on market conditions and how they will affect the project moving forward.

Ag Planner Projects:

Ag Planner position: Received over 12 applications, will be working on scheduling interviews to fill position ASAP.

Dairy Processing RBEG: Reached out to awardee but still awaiting status and next steps

Microenterprise Assistance Program: Continued administration of ag projects. Anticipate closing out grant by October 2013 deadline.

Sullivan County Farmland Protection Planning Grant: In process of scheduling interviews with 3 of the 4 respondents to RFQ.

Red Meat Processing Facility: Sent letter from AgLDC requesting withdrawal of transfer request since 2013RBOG was successful. Available to assist IDA as needed to complete this much needed project.

NYS Agricultural Districts

Ag District 1 8-year review: Public hearing held July 18th at 4:20 pm – no comments. Neg Dec resolution and inclusion resolution scheduled for August PERMP committee, will complete report and send to NYSDAM after resolutions pass.

Ad District 4 30-day review: Negative Declaration resolution and inclusion resolution passed in July. Finalizing report for submittal to NYSDAM before August 28th deadline.

Sullivan-Wawarsing REAP Food Distribution Hub Project: Together with the IDA, successfully received funding from USDA RD for this project totaling: RBEG: \$213K and RBOG: \$89K. We will continue to work with the IDA to ensure a successful project.

Recent Events & Happenings:

Ag Advisory Board:

REAP Board: 90-day notice sent to papers for Annual Meeting to be held November 6, 2013 at 9AM. An election will be held to fill vacancies on the Board of Directors. Nominations and names of those interested in serving on the Board are being taken at this time. Membership on the Board is open to all residents of Sullivan County and the Town of Wawarsing who are over the age of 18. All interested persons must submit name and resume by September 13, 2013 to Jill Weyer, Sullivan County Division of Planning and Environmental Management, 100 North Street, Monticello NY 12701.

Sullivan County Wellness Committee:

Ag and Farmland Protection Board: Met July 18th at 7:30 to discuss Farmland Protection Plan Update and responses to the RFQ, working n scheduling interviews with respondents for week of August 12th.

Upcoming Events:

REAP Board: next quarterly meeting will be on August 7th at 9:00 am.

**COMBINED: LEGISLATIVE MEMORANDUM,
CERTIFICATE OF AVAILABILITY OF FUNDS
AND RESOLUTION COVER MEMO**

To: Sullivan County Legislature

Fr: Joshua Potossek, Acting County Manager

Re: Request for Consideration of a Resolution: Set a Public Hearing on Local Law "Hydraulic Fracturing Brine Prohibition Act"

Date: August 1, 2013

Purpose of Resolution: [Provide a detailed statement of what the Resolution will accomplish, as well as a justification for approval by the Sullivan County Legislature.]

To set a Public Hearing on the Local Law as the "Hydraulic Fracturing Brine Prohibition Act.

Is subject of Resolution mandated? Explain:

No

Does Resolution require expenditure of funds? Yes ___ No

If "Yes", provide the following information:

Amount to be authorized by Resolution: \$ _____

Are funds already budgeted? Yes ___ No ___

If "Yes" specify appropriation code(s): _____

If "No", specify proposed source of funds: _____

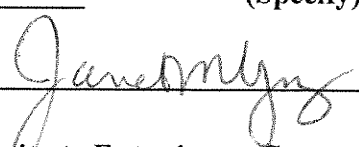
Estimated Cost Breakdown by Source:

County	\$ _____	Grant(s)	\$ _____
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State	\$ _____	Other	\$ _____
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Federal Government	\$ _____	(Specify)	_____
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Verified by Budget Office: _____



Does Resolution request Authority to Enter into a Contract? Yes ___ No

If "Yes", provide information requested on Pages 2. If "NO", please go straight to Page 3 and acquire all pre-legislative approvals.

Request for Authority to Enter into Contract with _____ of _____

Nature of Other Party to Contract: _____ Other: _____

Duration of Contract: From _____ To _____

Is this a renewal of a prior Contract? Yes ___ No ___

If "Yes" provide the following information:

Dates of prior contract(s): From _____ To _____

Amount authorized by prior contract(s): _____

Resolutions authorizing prior contracts (Resolution #s): _____

Future Renewal Options if any:

Is Subject of Contract – i.e. – the goods and/or services Mandated? Yes ___ No ___

If "Yes" cite the mandate's source; describe how this contract satisfies the requirements:

If "No" provide other justification for County to enter into this Contract: [County does not have resources in-house, best source of the subject materials, required by grant, etc.]:

Total Contract Cost for [year or contract period]: (If specific sum is not known state maximum potential cost): _____

Efforts made to find Less Costly alternative:

Efforts made to share costs with another agency or governmental entity:

Specify Compliance with Procurement Procedures (Bid, Request for Proposal, Quote, etc.)

_____ *Not Applicable (K)* _____

Person(s) responsible for monitoring contract (Title): _____

Pre-Legislative Approvals:

- A. Director of Purchasing: *Nancy Jones* Date *7/26/13*
- B. Management and Budget: *Jantmyr* Date *7/26/13*
- C. Law Department: *S. Glasgow* Date _____
- D. County Manager: *John P. ...* Date *7/26/13*
- E. Other as Required: _____ Date _____

Vetted in *Agriculture & Sustainability Policy* Committee on *8/1/13*

RESOLUTION INTRODUCED BY THE AGRICULTURE & SUSTAINABILITY POLICY COMMITTEE TO SET A PUBLIC HEARING FOR A PROPOSED LOCAL LAW ENTITLED “HYDRAULIC FRACTURING BRINE PROHIBITION ACT”

WHEREAS, there has been introduced and presented at a meeting of the Sullivan County Legislature held on August 15, 2013 a proposed Local Law entitled “Hydraulic Fracturing Brine Prohibition Act.”

NOW, THEREFORE, BE IT RESOLVED, that a public hearing be held on said proposed local law by the Sullivan County Legislature on September 19, 2013, at 1:50 p.m., in the Legislative Chambers, County Government Center, Monticello, New York, and at least six (6) days’ notice of the public hearing be given by the Clerk of the Sullivan County Legislature by due posting thereof on the bulletin board of the County of Sullivan and by publishing such notice at least once in the official newspapers of the County.

Moved by _____,
Seconded by _____,
and adopted on motion _____, 2013.

COUNTY OF SULLIVAN
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that there has been duly presented and introduced at a meeting of the Legislature of the County of Sullivan, New York, held on August 15, 2013 a proposed Local Law entitled "Hydraulic Fracturing Brine Prohibition Act."

NOTICE IS FURTHER GIVEN that the Legislature of the County of Sullivan will conduct a public hearing on the aforesaid proposed Local Law at the Legislature's Meeting Room, County Government Center, Monticello, New York, 12701, on September 19, 2013 at 1:50 p.m. at which time all persons interested will be heard.

DATED: August 15, 2013

ANNMARIE MARTIN
Clerk of the Legislature
County of Sullivan, New York

A Local Law Of The County Of Sullivan, New York Known As The “Hydraulic Fracturing Brine Prohibition Act”

BE IT ENACTED, by the County Legislature of the County of Sullivan, New York, as follows:

A new Chapter, Chapter 306 is added to the Code of the County of Sullivan to read as follows.

§306-1

Title. This Local Law shall be known by and may be cited as the “Hydraulic Fracturing Brine Prohibition Act”.

§306-2

Definitions. As used in this Chapter, the following terms shall have the following meanings:

“Application” shall mean the physical act of placing Brine on one or more County roads or one or more pieces of County property. Each physical act shall be deemed separate when the person committing the act stopping for any reason the placement of the Brine for any purpose, including but not limited to stopping a vehicle used in the placement of the Brine, stopping work for any reason, re-loading or replacing any material or equipment necessary to apply the brine.

“Brine” shall mean: hydraulic fracturing fluid, any or all, which are generated as a result of drilling for, or seeking gas in wells including but not limited to High Volume Hydraulic Fracturing, as defined herein.

“Commissioner” shall mean: The Commissioner of the Department of Public Works except for the use of the word “commissioner” in Section 306-5 may mean any other commissioner designated by the County Manager or may mean the Commissioner of Public Works as determined by the County Manager.

“High Volume Hydraulic Fracturing” shall mean a natural gas well stimulation technique consisting of the injection into the earth of a water and chemical mix with the intent of increasing the ability to extract natural gas from very tight rock.”

“Hydraulic fracturing fluid” shall mean fluid used to perform hydraulic fracturing and includes the primary carrier fluid and all applicable additives.

“Municipality” shall mean the County of Sullivan

“Property” shall mean real property, improved or otherwise, which the County of Sullivan owns or controls.

“Roads” shall mean public roads, streets, or bridges owned or controlled by the municipality.

§306-3

Use of Brine prohibited. No Brine shall be applied to or placed upon property or roads of the municipality. In any bid for materials, services, or equipment which relate to property maintenance or road improvements or road construction, the municipality in a bid specification or bid document describing the nature of the services or equipment sought, and any agency or division of the municipality, shall expressly state in capitalized, bold font, “THE PLACEMENT OF BRINE ON ANY ROAD OR PROPERTY OF THE COUNTY OF SULLIVAN IS UNLAWFUL. ANY BIDDER SHALL FILE A SWORN STATEMENT WITH THEIR BID THAT NO BRINE AS DEFINED BY LOCAL LAW OF THE MUNICIPALITY WILL BE SOLD TO THE MUNICIPALITY AS PART OF THE BID, OR UTILIZED ON OR PLACED ON ANY PROPERTY OR ROAD OF THE COUNTY OF SULLIVAN. BIDDERS ARE DIRECTED TO CHAPTER 306 OF THE LAWS OF THE COUNTY OF SULLIVAN FOR THE DEFINITION OF BRINE.”

§306-4

Statement to be included in Bid. The Statement provided for in §306-3, which shall be a sworn statement under penalty of perjury, shall read substantially as follows:

“We, _____ hereby submit a bid for materials, equipment, or labor for the _____ of _____. The bid is for bid documents titled _____. We hereby certify under penalty of perjury that no Hydraulic Fracturing Brine will be used by the undersigned bidder or any contractor, sub-contractor, agent, or vendor thereof in connection with the bid; nor will the undersigned Bidder or any sub-contractor, agent, or vendor thereof and/or therefor apply or supply any Hydraulic Fracturing Brine to any property or road(s) of the County of Sullivan as a result of the submittal of this bid if selected.” The Statement shall otherwise be sworn to under penalty of perjury in a form satisfactory to the County Attorney.

§306-5

Duty of Employees to be Familiar with this Chapter. The County Manager or, at the County Manager’s option, a department head or a commissioner of any Department appointed by the County Manager is authorized to develop policies to ensure county employees are familiar with this Chapter and take such steps as are directed by the County Manager or such department head or commissioner to ensure a diligent effort by the

County that materials supplied to the County or used on County roads or property comply with this Law. This shall not excuse non-compliance by a contractor or vendor of the County.

§306-6

Penalties for violations

- A. Breach of Contract. A violation of the provisions of this Chapter shall be deemed a breach of contract and shall authorize the Director of Purchasing in cooperation with the County Attorney and any other officer or employee of the County deemed necessary by the County Attorney, commence a civil Breach of Contract action against the violator of the provisions of this Chapter. Damages sought shall be determined by the County Attorney but may include, but shall not be limited to the cost of any consequential damages of the breach of contract. In addition, a determination by the Director of Purchasing that the contract was awarded through shall make a finding that the Contractor was not a responsible bidder and shall cause notice of such irresponsibility to be circulated in a form approved by the County Attorney to each other County in New York State. The County Attorney is further authorized to commence any necessary action to enjoin any violation of this Chapter he or she believes to be occurring.

- B. Criminal Penalties. In addition to prosecution for Perjury as determined by the District Attorney, any person who violates this article shall be guilty of an unclassified misdemeanor and subject to a fine not to exceed \$25,000.00 per violation and/or up to fifteen days' imprisonment. Each application of brine shall constitute a separate and distinct violation.

§306-7.

Separability. If any sentence, clause, paragraph, subdivision, sub-paragraph, part or provision of this article or the application thereof to any person or circumstance be adjudged invalid by any court of competent jurisdiction, such judgment shall be confined in its operation to the part, provision or application directly involved in the controversy in which such judgment shall have been rendered and shall not affect or impair the validity of the remainder of this article or the application thereof to other persons or circumstances and the Legislature hereby declares that it would have enacted this article or the remainder thereof had the invalidity of such provision or application thereof been apparent.

§306-8

Effective Date. This act shall take effect 30 days after it shall have been filed with the Secretary of State.