



Energy Work Group

August 15, 2011

Strengths

1. Rural nature of the region
2. Natural formations of natural gas
3. Strong university research centers - battery research; DoD thin film flexible solar cells; BAE in hybrid buses and control systems
4. Proximity to other sources of natural gas allows access to lower cost energy
5. Rich with biomass source, timber, Lockheed Martin facility, and making it work
6. Wood pellets
7. Wind development
8. Huge resource in skilled labor
9. Abundant water sources
10. Potential to develop significant hydropower
11. Combining natural resources with solar, wind
12. Availability of land for large scale biomass construction
13. Intellectual capital/power within the regions universities
  - a. Cornell Biomass groups
  - b. Solar Cell group
14. State energy plan 4514 progressive energy plans
15. Underused agricultural land
16. The energy distribution system seems pretty good to Binghamton
17. Already 1 million square feet of facilities sold to gas companies in Chemung County
18. Existing commission in Chemung on alternative fuels
19. Information has been gathered and is available on alternative energy
20. Location -- Milineum pipeline, distribution systems
21. Largest gas natural storage facility in the East
22. Private enterprise and the spirit of private enterprise throughout the region
23. Good infrastructure in some of the region (spotty) – highways, power lines, rail, etc.
24. Tax abatements
25. Corning Inc produces catalytic converters (pollution control), big in solar thin film, lots of renewable technologies being explored

## Weaknesses

1. Energy distribution system weak to north and east
2. Bad infrastructure in some of the region (spotty) – highways, power lines, rail, etc.
3. NYC DEP and water shed regulations
4. High energy costs
5. Lack of broadband, unconnected
6. Have shut down or are closing three power plants in last 20 years, resulting in loss of jobs
7. Grid reliability
8. No to low market demand for energy retrofits, residential and commercial
9. Many economic development agencies, little cooperation, some competition, duplicative efforts within the region
10. Contentious relationship between energy sector and public, nonprofit environmental community
11. Negative perception that alternative energy is bad, all energy sources
12. Poor communication among stakeholders within the region
13. Difficult to get SUNY System to move forward on new program initiatives, regarding workforce development
14. No structured workforce development program for energy programs
15. Uncertainty about Federal and State regulatory program regarding natural gas, little clear information
16. No firm national energy policy
17. Regulations for permitting a power plant are prohibitive
18. Lack of agility by the State Education Department - NY universities/higher education in general, degree bearing, certificate bearing
19. At the local level we lack infrastructure to get energy to rural local sites
20. Underserving small towns
21. Communities have aging or inadequate infrastructure
22. DEC requirements make it difficult for flow limit input to sewer systems
23. Natural gas has negative perception among some residents
24. Alternative energy has negative perception
25. Congestion in state-wide line to get energy to NYC
26. Difficult to get financing for projects
27. Lack of statewide net metering policy, especially public buildings
28. Need to retain young people
29. Have natural resource but residents not ready to come together
30. Lack objective information and science-based information for energy siting and movement
31. Lack of consensus that climate change is an issue
32. Average of housing stock in NYS is old, energy inefficient
33. We may not have a workforce to support the various energy industries
34. Cannot get technical training in the energy field in our region
35. State has removed the technical local diploma for high school students

## Opportunities

1. Repurpose coal fired plants with renewables
2. Average of housing stock in NYS is old, energy inefficient – can upgrade for energy conservation and efficiency
3. Take advantage of the natural gas in many ways
4. Energy conservation
5. Use intellectual expertise to help communicate objective information
6. Use natural gas, beyond harvesting, to create new jobs
7. Use natural gas to offer lower cost energy to existing or new business
8. Ample supply of empty building for general use/ utilization of vacant buildings
9. Use older sites with new raw materials availability to encourage manufacturing
10. Education and outreach
11. Consolidate the energy review process
12. 60-70% of the region is forested and we can crank out biomass energy
13. Unused agricultural land combined with new technology can become the national center for biomass
14. Utilize the water as source of economic development
15. Bring together all sources of and educational institutions to help reshape the entire region
16. To use the Extension model to take energy research to the community

## Threats

1. Move to close all the coal burning power plants in NYS
2. Competition against other regions with lower taxes, better coordination, better organized
3. Marcellus Shale – sustainable,
4. Marcellus Shale – water pollution
5. Competition for funding
6. Regional boundaries don't work well for NYS; rural areas may have the toughest time
7. Too many different regions from different NYS initiatives
8. State creates a great deal of uncertainty among industries considering locating here
9. Lack of system to arbitrate between natural gas industry and public resistance
10. Media coverage has been atrocious and inflammatory regarding energy issues
11. Marcellus Shale – evidence in PA it is crowding out other business sectors
12. Marcellus Shale – stress on housing
13. DEC not taking leadership role controlling the pace of Marcellus Shale
14. Don't have mechanisms to deal with extractive resources
15. Disconnect between energy users and where energy comes from

#### Additional resources

- Jamestown model
- Identify reports and resources that might be valuable to this group and upload to website