



Energy Independent Communities: 25x25 Plan Grants Pilot Presentations 4th Quarter Report

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Town of Fairfield, Sauk County
Green Bay, WI
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Overview

What was measured? Why?

Discoveries/Surprises

Total Projects Considered

Pathways to 25 x 25

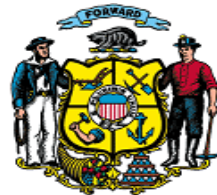
Projects Selected – Explanation

Potential Renewable Feedstocks

Existing Unknowns: Necessary Information for Future

Action Steps – Immediate & Long - Term

Energy Independence Team Members





Town of Fairfield, Sauk County Energy Independence Team

What was measured? Why?

- Largest emitters of greenhouse gases, vehicles and buildings
 - Town Hall
 - Fairfield Elementary School
 - Sauk County Highway Department's truck and tractor
- These are the only entities that fell within the guidelines of the grant program.





Town of Fairfield, Sauk County Energy Independence Team

Discoveries/Surprises

- Fairfield does not have the layers of bureaucracy that larger municipalities have.
- Because of the minimal operations, the Town does not have as much data to collect.
- Based on the community survey, Town Residents overwhelmingly supported the 25x25 Initiative.
- The Town Hall and School are already very efficient.
- Because the Town Hall consumes very little energy, the vehicular use within the Town accounts for an overwhelming portion of the energy consumed.
- The School District is planning on selling the school within a couple years, so it is not viable for improvements, and has been removed from the Baseline.
- It is very difficult to develop cost effective renewable energy projects within the typical no-frills town government structure.





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Total Projects Considered

- Photovoltaic array for the Fairfield Town Hall
- Solar hot-water system to assist the current propane heating system at the Town Hall
- Convert fleet vehicle to biofuel



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Pathways to 25 x 25

- **Priority, PV array for the Town Hall: slowly phased in adding panels every 5 years starting in 2012 to account for the low capital resources.**
- **Solar hot-water would be added in 2018.**
- **Biofuel conversion would take place in 2020.**

Note: Depending on the RPS in Wisconsin, it may change the timing of the projects or type of measure implemented.



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Projects Selected – Explanation

- Because of the limited financial resources in the town it was important to consider “practical” measures for renewable energy.
- The PV array is the priority project because of the savings-to-investment ratio and enables development of a Town Renewable Energy Coop to involve residents.
- Based on the Energy Center of Wisconsin’s model:
 - Implementation of all three projects would attain 256% of the 25x25 goals.
 - Implementation of the biofuel vehicle and the PV array would attain 141% of the 25x25 goals.
 - At this point, the solar hot-water does not make sense to pursue.



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Potential Renewable Feedstocks

Wind – Not Viable

Solar - Best resource at this time

Biogas (landfill, agriculturally-based) – There is potential based on the community type model or system.

Biomass (wood, prairie grasses, other) – Good resource, Fairfield would be an average producer of forest and agricultural feedstocks. Small scale projects would be key.

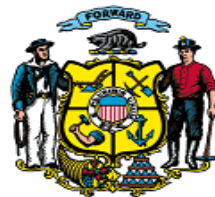
Hydro - Possible



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Existing Unknowns: Necessary Information for Future

- To further progress all energy consumers would need to be considered to be more attractive to funding sponsors.
 - This consideration will need to include heating and transportation consumption.
- The Town will need to continue working with and encouraging the County Highway Department to purchase vehicle that use renewable fuel sources.



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Action Steps – Immediate & Long – Term

1. Increase the public awareness of the Town's 25x25 Initiative
2. Adopt the 25x25 Plan
3. Establish the Fairfield Sustainability Committee
4. Promote the involvement and education of Town residents
5. Coordinate with Sauk County to replace its diesel fleet vehicles with a biofuel vehicle
6. Find funding for the proposed renewable energy projects.
7. Install proposed projects.



Town of Fairfield, Sauk County Energy Independence Team

Energy Independence Team Members

Tim Stone, Town of Fairfield Chair

Buddy Huffaker, Director of the Aldo Leopold Foundation

Dave Chesky, Facility Director for the International Crane Foundation

Gene Larsen, Local agri-business owner

Harold Spink, Town Zoning Administrator

Kristi DuBois, local resident and professional engineer

Carolyn Moon, Adams-Columbia Electric Coop Board of Director

Andrew Skwor, professional engineer

Jennifer Erickson, UW-Extension representative





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Additional Comments, Observations, Recommendations

Nothing at this time!



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