LOCAL ENERGY ACTION CASE STUDY

STEARNS COUNTY

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This case study incorporates content from the Great Plains Institute and Midwest Renewable Energy Association - Grow Solar project, with permission.

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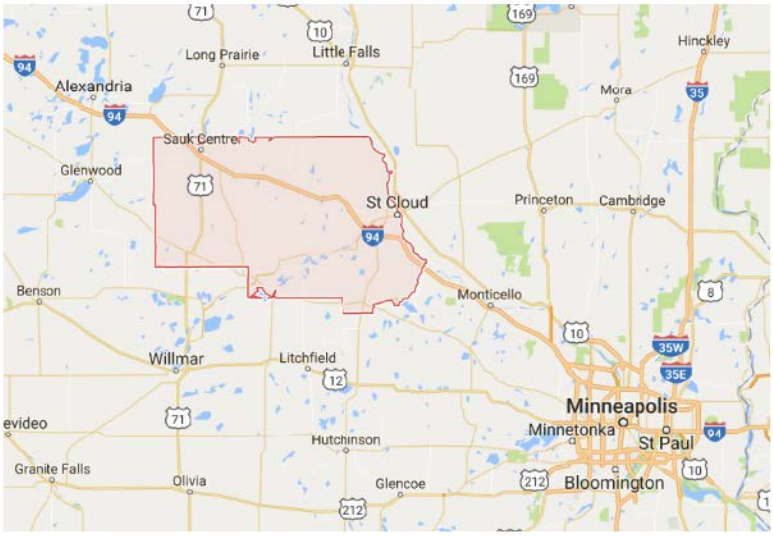
ABOUT STEARNS COUNTY

Stearns County is located in central Minnesota, approximately a 1-1.5 hour drive northwest of the Minneapolis/St. Paul area. It is outside of the Metropolitan Council's 7-country planning area, but is part of the broader, growing metropolitan region.[1] The county population of 150,000 is primarily based in and around St. Cloud, and the county includes 30 cities and 34 townships. It includes urban areas but is mostly rural and agricultural. The county grew almost 40 percent from 1970-2000.[2] The population is generally younger than Minnesota as a whole, has a relatively high level of educational attainment, and leans Republican.



STEARNS COUNTY LEADERSHIP HIGHLIGHT:
RENEWABLE ENERGY DEVELOPMENT & SOLAR ORDINANCES

Stearns County has planned and supported sustainable development initiatives for a decade.

- ✓ The county's comprehensive plan includes renewable energy development as economic development
- ✓ The county adopted an innovative solar ordinance and led community engagement to set solar policies

[1] The St. Cloud Metropolitan Statistical Area, including Stearns and Benton counties and the city of St. Cloud, are part of the Minneapolis-St. Paul, MN-WI Combined Statistical Area, the 15th largest metropolitan area in the U.S.; *see* United States Office of Management and Budget, 2014.

[2] Stearns County, Minnesota website; https://co.stearns.mn.us/Government/AboutStearnsCounty/CitiesTownships

RENEWABLE ENERGY DEVELOPMENT PLANNING FRAMEWORK

Stearns County has been an early leader in incorporating solar development into its county plans and regulations.[3] Beginning in its 2008 Comprehensive Plan, the county included provisions supporting renewable energy development for both economic and sustainability advantages.[4] The county then adopted a solar energy ordinance which included the first solar farm provisions in the Midwest.[5] As solar development in the country grew, some projects faced local opposition. The County Board considered a moratorium, but instead created a solar stakeholder workgroup charged with investigating and recommending ordinance changes.[6] This collaborative process led to a new, innovative solar ordinance, which included "first in the Midwest" requirements for solar farms to include pollinator habitat co-benefits. [7]

COUNTY COMPREHENSIVE PLAN

Stearns County's first Comprehensive Plan was adopted in the 1970s and revised in 1998.[8] In 2005, the County Board began the process of revising its next forward-looking Comprehensive Plan, and set several goals to ensure the new plan would:

- be driven by input from diverse community interests
- recognize the interdependence of a healthy environment, economy and community, and allocate resources to encourage sustainability
- Lead to cost-effective delivery of county services.

After extensive community engagement, the county adopted its 2030 Comprehensive Plan in 2008.[9] This Plan included renewable energy as part of its economic development and natural resource strategies. It recognized that developing renewable energy projects could represent an economic opportunity for the county.

WIND ENERGY

In addition to solar development, wind energy has been a part of Stearns County's push for renewables. The county is home to the Black Oak Windfarm. This required approval from the state Public Utilities Commission, not the county, as it is over 50 MW.[10]

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[3] Stearns County Case Study, Midwest Renewable Energy Association (MREA) Grow Solar Partnership, 2018; https://www.growsolar.org/toolkit/

[4] Stearns County 2008 Comprehensive Plan, https://co.stearns.mn.us/Portals/0/docs/CompPlan/CompPlan01Intro.pdf

[5] Brian Ross, "Minnesota's Stearns County provides a unique national example of a 'solar-ready' community," Great Plains Institute, Sept. 26, 2017; accessible at http://www.betterenergy.org/blog/minnesotas-stearns-county-provides-unique-national-example-being-solar-ready-community/

[6] "Board Says No to Solar Farm Moratorium," *Stearns County Minnesota*, May 3, 2016, https://co.stearns.mn.us/Community/CountyNews/ArtMID/2343/ArticleID/1065/Board-Says-No-to-Solar-Farm-Moratorium

[7] Stearns County Case Study, Midwest Renewable Energy Association (MREA) Grow Solar Partnership, 2

[8] Stearns County 2008 Comprehensive Plan, https://co.stearns.mn.us/Portals/0/docs/CompPlan/CompPlan01Intro.pdf

[9] Ibid.

[10] Black Oak Windfarm, Geronimo Energy, https://www.geronimoenergy.com/ourprojects/black-oak/

2030 COMPREHENSIVE PLAN RENEWABLE ENERGY STRATEGIES:

- ✓ Economic Development Objective 5.4: Encourage the appropriate development and use of electricity from wind energy as a means of substituting underutilized local renewable resources for non-renewable, non-local, energy sources.

- ✓ Natural Resource Objective 2.4: Encourage the use of renewable energy systems, including wind energy and solar energy, which reduce the footprint of development on local and global natural systems.

SOLAR ORDINANCE

Stearns County adopted its first zoning ordinance in 2000.[11] In 2010 the county revised its zoning ordinance to implement Comprehensive Plan goals and adopted a solar ordinance that enabled both distributed solar and larger solar farm development. This enabled a 400 KW solar farm to be built on St. Johns University land in Collegeville.

In 2013, the Minnesota Legislature passed, and Governor Dayton signed into the law the new solar energy standard and the community solar garden law.[12] By 2015, Stearns County saw robust growth in solar proposals, in the form of both solar farms and community solar gardens. The 100 MW Aurora solar project included 16 proposed sites in mostly rural communities, several of them located in Stearns County. Because of its size, the Aurora project was under State regulatory jurisdiction rather than County jurisdiction; nevertheless, it added to local leaders' concerns about how solar development affected the community.[13] The county's solar ordinance was revised in 2014, modifying the residential solar language to make it more flexible and addressing changing market conditions and new solar development proposals.[14]

The current Solar Energy Systems Ordinance was approved in 2016 after the County Board decided not to impose a moratorium. Instead, extensive investigation was conducted, and recommendations were made by the Solar Workgroup.[15] Several elements of the ordinance were aimed at addressing new developments in solar farms, particularly the pollinator language, the stormwater exemption, concerns about setbacks/landscaping, designating in which districts to allow solar farms, and decommissioning.

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[11] Stearns County Comprehensive Plan, 1-2.
[12] Bob Eleff, "2013 Solar Energy Legislation in Minnesota," *Minnesota House Research Short Subjects*, August 2013, http://www.house.leg.state.mn.us/hrd/pubs/ss/sssolarleg.pdf
[13] Stearns County Case Study, Midwest Renewable Energy Association (MREA) Grow Solar Partnership, 2
[14] Angie Berg, Land Use Division Supervisor, Stearns County, interview regarding the various prior solar ordinances since 2010.
[15] Stearns County Land Use and Zoning Ordinance # 439, 6.52 Solar Energy Systems, at 6-53 (last printed December 12, 2017), https://co.stearns.mn.us/Portals/0/docs/Ordinances/ord439.pdf?ver=2017-08-18-133145-417

The ordinance states that "development of solar energy is in the public interest and consistent with the Comprehensive Plan".[16] Specific references to the current Comprehensive Plan goals include:

- Natural Resource Plan, Goal 2, Objective 4: Encourage use of renewable energy systems, including wind energy and solar energy, which reduce the footprint of development on local and global natural systems; and
- Economic Development Plan, Goal 3, Objective 3: Encourage and promote the use of "green" architecture design principles that minimize impacts to the natural and cultural environments and reduce long-run risk to business.

POLLINATOR HABITAT

Because Stearns County made a unique decision to include a pollinator habitat requirement in its ordinance, the county should see benefits of stormwater management and filtration, as well as potential benefits from pollinator populations.[17]

COUNTY STAKEHOLDER PROCESS: SOLAR WORKGROUP

The County Board formed a Solar Workgroup of key stakeholders to respond to citizen concerns. The Workgroup:

- ✓ Investigated solar development issues
- ✓ Was conducted outside the regulatory process
- ✓ Produced a recommended new solar ordinance

The Solar Workgroup included County Board and Planning Commission members, agricultural representatives, solar developers, and landowners, one of whom lived next to a proposed solar farm.[18] The process was facilitated by the Great Plains Institute.[19] The Workgroup investigated the following topics:

- "Which zoning districts were appropriate for allowing solar farms
- What type of regulatory permit was appropriate
- Stormwater management and risks
- Agricultural protection
- Conflicts with other land uses (particularly residential)
- Conflicts or synergies with natural resources (woodland, wetland, shoreland)
- Financial guarantees
- Development standards (screening, setbacks, location of equipment, fencing, etc.)".[20]

[16] Stearns county ordinance 6.52 solar Energy Systems, https://co.stearns.mn.us/Portals/0/docs/Ordinances/ord439.pdf?ver=2017-08-18-133145-417
[17] Habitat Friendly Solar Certification, Minnesota Board of Water and Soil Resources (BWSR), see http://www.bwsr.state.mn.us/practices/pollinator/program_summary.pdf
[18] Stearns County Case Study, Midwest Renewable Energy Association (MREA) Grow Solar Partnership, 3
[19] Great Plains Institute, www.betterenergy.org
[20] Stearns County Case Study, Midwest Renewable Energy Association (MREA) Grow Solar Partnership, 3

The workgroup allowed stakeholders to discuss solar regulation outside of the context of a particular solar development proposal. Since members of the workgroup were not concerned with supporting or opposing a specific project, they were able to freely discuss the possibilities for solar. In many cases, the group found that existing regulations were well suited to the community's solar development needs. In other instances, the group identified changes that could be made to maximize the benefits of solar. One of these changes was to include solar farms as a conditional use in areas coded for "urban expansion."[21] These areas around cities are well-suited for solar development because they are near areas of electricity demand. Another offshoot of the workgroup was the "beneficial habitat" standard which requires that solar farm vegetation must benefit stormwater management and pollinators.[22]

With these recommendations incorporated into the new ordinance, Stearns County became the first local government in the Midwest, and one of the first in the nation, to ensure that "solar development captures co-benefits such as perennial pollinator habitat and improved surface water quality through increased infiltration."[23] In addition, solar developers benefit because under the ordinance solar projects are not considered impervious surfaces that would otherwise be subject to County regulations. By convening multiple stakeholders, the Solar Workgroup was able to create frameworks that provide mutual benefit.

PLANNING AND GOALS

Stearns County has some additional sustainability goals in their Comprehensive Plan, including provisions for protecting water quality, conservation design, farmland protection (and thereby, anti-sprawl), and policies in support of green buildings.[24]

County and city policies necessarily interact on land use. The county and the cities within the county are mutually exclusive on zoning, except in the "extraterritorial" areas around the cities, where annexation agreements frequently govern the land uses. Stearns has a process to mitigate against conflicts in these areas, and one of the changes they made in the 2016 solar ordinance was to allow solar farms in these areas, if the city and township were in agreement about it.[25] There are some orderly annexation agreements with St. Joseph, Minnesota.[26]

MEASURING RESULTS

Stearns County is a desirable location for solar development. The more urban, populated eastern part of the county in the St. Cloud metropolitan area is largely in Xcel Energy territory, and has transmission connections to the Minneapolis/St. Paul metropolitan region. The county also has substantial rural areas that can accommodate solar farm development, much of it served by distribution electric co-operatives.

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[21] Stearns County Case Study, Midwest Renewable Energy Association (MREA) Grow Solar Partnership
[22] Stearns County Case Study, Midwest Renewable Energy Association (MREA) Grow Solar Partnership
[23] Brian Ross, "Minnesota's Stearns County provides a unique national example of a 'solar-ready' community"
[24] Angie Berg, Interview, March 2018; Comp Plan Natural Resources Goals and Objectives, Chapter 4. Natural Resources and Environmental Management Plan, 2030 Stearns County Comprehensive Plan, 4-12 to 4-14 (March 2008), http://stearns.artemis-staging.com/Portals/0/docs/CompPlan/CompPlan04NatResources.pdf.
[25] Mutually Exclusive Stearns County Land Use Planning, only effective in unincorporated areas. *See* Stearns County Land Use and Zoning Ordinance # 439, 1.4 Jurisdiction, at 1-1 (last printed December 12, 2017), https://co.stearns.mn.us/Portals/0/docs/Ordinances/ord439.pdf?ver=2017-08-18-133145-417.

[26] Annexation Agreement under Minn Stat. § 414.0325 (2017).

The County has processed a number of community solar garden development applications and solar farm proposals.

After the Xcel Energy Community Solar Garden program became established, the county's solar market evolved, leading to the new ordinances and development framework. Stearns County has become a hub of solar development. Currently the County has over 60 Megawatts of installed solar projects, including community solar gardens and solar farms. They include several projects at St. John's University and two of the statewide distributed Aurora project solar farms, in Paynesville and in Albany, the latter for a total of 30.4 Megawatts.[27]

Stearns County continues to be an active solar market. A county spreadsheet shows over 643 Megawatts of solar projects permitted in Stearns County as of February 9, 2018.[28] This includes all permitted projects; it therefore includes both completed and uncompleted projects and those in the queue. Solar projects larger than 1 Megawatt require a production tax be paid by facility owners to the state, which distributes proceeds back to the city or township and the county.[29] Stearns County has received $124,552 in Solar Energy Production taxes for 2018.[30] Additionally, projects of that size pay additional property taxes. The county has not yet calculated the overall economic impact of these projects on the local economy and tax base.

INSTITUTIONAL DEVELOPMENT & NETWORK PARTICIPATION

Stearns County has developed substantial institutional support for its efforts. The County worked with the Minnesota-based Great Plains Institute (GPI) through the Midwest-based Grow Solar Partnership.[31] GPI provided technical assistance for the 2010 ordinance, and later facilitated the stakeholder process to update the solar farm zoning standards.[32] GPI then assisted the County in applying to the national Solsmart program. Solsmart certifies local governments as "solar ready" and provides technical assistance to cities, counties, and regional governments to help them capture the economic development benefits of solar energy. Local governments can earn designations of Bronze, Silver, and Gold, to show they are "open for solar business." In 2017 Stearns County joined a group of other Minnesota and Iowa communities in a Solsmart project led by GPI and the Clean Energy Resource Teams.

[27] Kirsti Marohn, "St. John's expands its solar footprint", *SC Times* (Jan 10, 2017), https://www.sctimes.com/story/news/local/2017/01/10/st-johns-expands-its-solar-footprint/96340932/; Lee Voss, Aurora Solar Project bringing electricity to some Stearns County homes, *WJON AM 1240*, Feb. 2, 2017, http://wjon.com/aurora-solar-project-bringing-electricity-to-some-stearns-county-homes/

[28] Document available from Angie Berg, Stearns County land-use supervisor.

[29] Minnesota Statute §272.0295.

[30] Kara Bakke, Geronimo Energy, May 1, 2018.

[31] Grow Solar Partnership is a U.S. Dept. of Energy (DOE) funded SunShot Rooftop Solar Challenge program. *See* www.gosparc.org/; www.growsolar.org.

[32] Brian Ross, "Minnesota's Stearns County provides a unique national example of a 'solar-ready' community"

LESSONS LEARNED

- ✓ Evolving markets require evolving regulations
- ✓ New zoning rules should be integrated with existing standards
- ✓ Solar projects should be treated like other development
- ✓ Regulation should ensure capture of co-benefits
- ✓ Leaders must understand local perspectives and create opportunities for learning about solar[33]

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Stearns County's experiences with solar regulation can provide insight for other counties. An assessment of the current regulatory landscape in Stearns County facilitated effective solar development. In some cases, existing policies were well suited to accommodate solar development. Regulations that guide other forms of development are often appropriate for solar development as well. However, there were cases when changes in the solar market were best met with changes in regulation. Tracking the evolving solar market informed assessment of regulation and allowed policies to be evaluated and updated as needed. The Solar Workgroup allowed for this assessment to be guided by input from community members. By having local perspectives inform the regulatory processes, Stearns County was able to ensure solar development benefited the community and aligned with community goals. It was the Solar Workgroup that advocated for the beneficial habitat requirement. This innovative standard improves stormwater management and aids pollinators, demonstrating the potential for regulation to direct the capture of co-benefits[33].

[33] Stearns County Case Study, Midwest Renewable Energy Association (MREA) Grow Solar Partnership, 4
[33] Stearns County Case Study, Midwest Renewable Energy Association (MREA) Grow Solar Partnership

IN DEPTH: COUNTY ACTIONS

Stearns County Solar Development Timeline[34]

March 2008
- Stearns County adopts Comprehensive Plan supporting renewable energy development

July 2009
- The county adopts farm standards for the Educational/ Ecclesiastical District

March 2010
- Zoning Ordinance is revised to implement the Comprehensive Plan

2013
- The 100 MW, 16 site Aurora solar project is proposed, including several sites in Stearns County

Spring 2015
- Solar developers inquire about multiple sites in Stearns County

June 2015
- The county revises its distributed solar land use ordiance

Fall 2015
- Several solar projects are approved by the county, the Aurora project is approved by the PUC, and one solar project is denied a permit

January 2016
- Some proposed solar developments become controversial due to required rezoning and land use conflicts

Spring & Summer 2016
- County Board evaluates moratorium, instead creates a solar workgroup

August 2016
- Solar Workgroup begins meeting

November 2016
- Planning Commission and County Board approve revised solar ordiance language

Information from MREA Grow Solar Case Study, used with permission

[34] Stearns County Case Study, Midwest Renewable Energy Association (MREA) Grow Solar Partnership

QUESTIONS?

For questions on these activities and to learn more, contact Stearns County:

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Land Use Division Supervisor, Stearns County
(320) 656-3613
angie.berg@co.stearns.mn.us

ADDITIONAL RESOURCES

Minnesota's Local Government Project for Energy Planning (LoGoPEP) builds upon existing efforts to engage local governments in committing to actionable strategies for energy and greenhouse gas emission reductions. LoGoPEP provides communities with planning tools and actual results to measure progress toward their goals. Tools developed for communities can be found on the LoGoPEP website.

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