Community Energy Plan Benchmarking

Focus Community Comparison

The SDT worked with the Outdoor Discovery Center to conduct a community comparison to benchmark City of Holland's performance and identify effective strategies. Focus communities, similar to Holland with exemplary performance in sustainability efforts, were analyzed. An internal review was also done that revealed indicators that make Holland unique.

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Video Link

Introduction & Methodology

To benchmark the City of Holland's performance and identify effective strategies, dozens of communities across the country were assessed under the CEP SDT's directive. Communities were analyzed using a matrix of key indicators that aligned with the triple bottom line (people, profit, and planet). Cities that ranked similarly to Holland in "people" and "profit" indicators with exemplary "planet" performance were selected for further analysis. These cities were Grand Rapids, MI; Lansing, MI; Dubuque, IA; and Eau Claire WI. Public documents including sustainability reports, climate action plans, comprehensive plans, and integrated resource plans were used in conjunction with interviews of sustainability managers from each community to construct profiles for comparison.

Focus Communities

Summary

Analysis of the focus cities revealed several common themes, successes, and shortcomings in their respective efforts to promote sustainable development:

- Strong Support from top leadership with mayors and council members whose campaigns emphasized sustainability, renewable energy, and/or climate change. These leaders were spurred to action by community advocacy and broader political action (namely, the Kyoto Protocol, Paris Climate Accord, and the U.S. Government's rollback of environmental regulations and commitments.)

- Carbon and renewable energy commitments were made before feasibility assessments and implementation plans were in place. In most cases, task forces, committees, and strategic action plans were deployed in the months and years following. This methodology has proven ineffective for community-wide goals, with cities struggling to meet the pace necessary to achieve them.

- Sustainability and climate action plans rather than community energy plans. Although a major focus, energy was just a portion of a larger, more comprehensive approach in these communities.

- Sustainability managers from each community identified a disproportionate investment in planning and publicity relative to implementation. It is worth noting that most of these plans are in their early stages and COVID 19 has stifled progress. However, staff warned that too many goals, metrics, and reporting requirements can limit capacity for direct action and impactful work. Many recommended borrowing from existing, tried-and-true plans to save time, speed up the process, and increase implementation.

- Small teams of dedicated staff (1-3 individuals) supported by committees, task forces, and community resources. These staff members reported through Community & Neighborhood Services or Planning departments. To maximize efficiency and share the workload, sustainability goals were integrated into each department's planning and decision-making process through various mechanisms including scorecards, performance evaluations, and carbon pricing.

- A strong focus on building consumption and efficiency. Representing a large portion of each community's carbon footprint, this "lever" can be influenced by the city government in several ways. Solutions are relatively affordable and available and benefit multiple stakeholders.

Grand Rapids

The City of Grand Rapids ranked similarly to Holland in indicators including age, education, race & Hispanic origin, fund balance ratio, housing, income, and tax base. Major differences included population and general fund balance.

Guidance for the City of Grand Rapids' sustainability efforts comes from its Strategic Plan and 2017-2021 Sustainability Plan. Sustainability is one of six core values embedded into the city's strategic plan. The Sustainability Plan, updated every five years, offers more in-depth action items structured sequentially as Goals, Outcomes, and Targets. These objectives cover each aspect of what Grand Rapids has coined the "Quadruple Bottom Line" - an approach that accounts for economic, social, environmental, and governance performance.

The target most relevant to the CEP is Grand Rapids' plans to power 100% of municipal operations with renewable energy by 2025. Additional goals created in partnership with several other community stakeholder groups include a net-zero carbon building sector by 2050 as a part of the Zero Cities Project and a 50% reduction in emissions from energy, water, and transportation by 2030 as a 2030 District.

Recognizing that municipal operations accounted for roughly 2% of community emissions, the city set aggressive internal goals to establish itself as a leader. With regards to community-wide targets, it has taken a more collective approach to work with other community partners. This was done with the understanding that responsibility for the majority of emissions lies outside of the city's direct control. The Community Sustainability Partnership and Community Collaboration on Climate Change (C4) have served as major mechanisms for the city to participate in a community-driven approach. Although this methodology has received criticism, it has enabled Grand Rapids to engage a broader representation of its population in the conversation and to participate in the solution.

The Office of Sustainability is comprised of three staff members. These individuals work closely with internal departments, boards, and commissions and leverage external collaborations and partnerships to complete their work. Funding for major projects typically comes from grants, utility rebates, and energy cost savings achieved through efficiency improvements. Property Assessed Clean Energy (PACE) financing was adopted in 2017 but

has not been a popular financing option for individuals, businesses, and organizations looking to fund clean energy projects.

Municipal buildings have achieved a 25% reduction in energy consumption from 2009-2021. As of March 2021, Grand Rapids was sourcing 37% of energy from renewable sources. A recently approved solar project on the city's water filtration plant is slated to bring that number to 41% in the near future.

Lansing

The City of Lansing ranked similarly to Holland in indicators including age, geography, education, City revenue, housing, industry, and utility structure. Major differences included population, fund balance ratio, and tax base.

Guidance for the City of Lansing's sustainability efforts comes from its 2020-2023 Climate Action Plan. The plan offers well-defined short, mid, and long-term goals (2-5 years, 10 years, and beyond) for municipal operations. Headline goals in this plan include scope 1 & 2 carbon neutrality by 2040 as well as carbon neutrality for non-transportation and transportation-related scope 3 emissions by 2030.

Since releasing its Climate Action Plan, the city created its first Sustainability Manager position and has begun work on a community scale plan to be released in the near future. The Sustainability manager reports through the Public Service Department and is supported by an intern position as well as the Mayor's Advisory Commission on Climate Change (13 citizens, with members representing the Lansing Board of Water and Light, Mid Michigan Environmental Council, and other environmental interest groups).

Lansing's mayor and council have positioned themselves as strong supporters of climate and sustainability progress as signatories and/or participants in several external initiatives including the Global Covenant of Mayors (GCOM), Climate Mayors, The US Conference of Mayors Climate Agreement, and MI Green Communities. In 2019 (before the release of the Climate Action Plan) the mayor made a budget proposal to purchase renewable energy credits that would cover 100% of City-owned building energy use. The proposal, however, was voted down 6-1 by the city council with members arguing that the funds were better spent on energy efficiency, waste, and wastewater treatment programs.

Early progress on the new plan has been stifled by the COVID 19 Pandemic but the city has focused on small successes to build momentum towards its goal. Staff is working to refine GHG inventories with new data and secure grant funding for future projects.

The Lansing Board of Water and Light (LBWL) has created parallel goals in its Integrated Resource Plan (IRP). The IRP outlines a recommendation of fifty Percent Clean Energy by 2030 and Carbon Neutrality by 2040 for its service area. These targets were adopted by the LBWL after public engagement via a community task force, meetings with the top twenty commercial customers, and outreach to residential customers. A roadmap to achieve these goals is not yet in place but the utility cites the commitments of other public-owned utilities in Michigan (Traverse City, Petoskey, Ann Arbor,) as evidence that carbon neutrality is feasible. Initial efforts have focused on waste reduction and phasing out non-renewable portions of their portfolio as contracts expire. A forthcoming sustainability plan will prompt departments within the LBWL to include measures to attain carbon neutrality in their planning and decisions making processes. LBWL broke ground on a new natural gas-fired power plant in 2019, describing it as a bridge from coal to cleaner technologies. They are considering opportunities to reduce this plant's carbon emissions among other investments including storage and microgrid projects.

Dubuque

The City of Dubuque ranked similarly to Holland in indicators including age, geography, education, City revenue, fund balance ratio, housing, and income. General fund balance was the indicator least similar to Holland.

Guidance for the City of Dubuque's sustainability efforts comes from its Climate Action Plan 2020. This plan is the latest evolution of a long history of climate and sustainability initiatives. Early in its sustainability journey, Dubuque set out to be a model for other communities and has worked to record its progress and share its knowledge through various documents, networking venues, and its annual sustainability conference. The city's headline goal is a commitment to cut carbon emissions fifty percent by 2030 from a 2003 baseline. This commitment was adopted in 2013 and updated in the recent Climate Action Plan. The city defines it as "a non-binding, voluntary effort to identify opportunities to reduce Dubuque's community greenhouse gas emissions."

Dedicated sustainability staffing is limited to one full-time position with support from a seasonal internship. The city has found success organizing a teen task force for outreach and engagement and leverages a team of five AmeriCorps volunteers to help with energy efficiency audits and education. Dubuque's mayor and council members have made sustainability a top priority as far back as the Kyoto Protocol and continue to demonstrate their dedication through the signing of various commitments including the Global Covenant of Mayors, Climate Mayors, and We Are Still In.

Funding for sustainability work beyond staffing was largely grant-driven. A small fund has been established to support $2,500 micro-grants that encourage the community to take action into their own hands. Up to ten projects are selected each year for their work to support one or more of the city's 12 sustainability principles. Staff noted that there had been some internal conversations around a conflict of interest between enterprise funds and waste and water reductions. The city recently placed an internal price on carbon to assist with full cost accounting and make low carbon alternatives more competitive.

As with other cities, COVID 19 has challenged the implementation of Dubuque's Climate Action Plan, but incremental progress has been made towards the city's 50% by 2030 goal. A 2019 greenhouse gas inventory report measured a 27% reduction in GHG emissions since 2003, improving upon the 16% reduction measured in 2014. Staff expressed some caution that planning, reporting, and goal setting can consume valuable time and resources that could otherwise be used for action and implementation.

Eau Claire

The City of Eau Claire ranked similarly to Holland in indicators including age, geography, education, fund balance ratio, housing, and income. Major differences included general fund balance and industry.

Eau Claire's climate and sustainability efforts are guided by its Renewable Energy Action Plan, (REAP) published in early 2020. The plan was preceded by Towards A Renewable City, a report commissioned by the council to make recommendations in line with the Paris Agreement in 2017. The headline goals outlined in these documents are 100% renewable energy and carbon neutrality for the entire community by 2050. The framework for the Renewable Energy Action Plan was created by Xcel Energy, the investor-owned utility providing electricity for Dubuque and its residents. The REAP steering committee then took this framework and refined it to fit the city's needs and unique situation.

Eau Claire was unique in its lack of a dedicated, full-time sustainability position. Instead, responsibility for this work falls on the city's Green Team, a cross-departmental group formed in 2008 and led by the senior city planner. Further support comes from Eau Claire's Sustainability Advisory Committee. As with other focus cities, Eau Claire's mayor and city council have made sustainability and climate action a clear priority.

Eau Claire has relied on grant funding to generate its sustainability plans. A renewable energy investment fund has been established to support clean energy and energy efficiency investments. The city is still learning how to best leverage this resource. The Green Team is exploring high-impact, low-cost campaigns and leveraging partnerships with community organizations including a local nature center for outreach and education.

Recent performance data was not readily available, however, a 2018 GHG inventory identified a lack of significant emissions reductions in comparison to 2015 data. Echoing Dubuque, staff commented that it was important to strike a balance between investments in planning/reporting and implementation.

Noteworthy findings and strategies from other communities

Standout strategies and programs in non-focus communities were documented for further consideration. These included:

- Columbia, MO - Demonstrated leadership through municipal operations with emphasis on empowering community action and participation. Renewable energy ordinance with escalating purchase requirements.
- Park Forest, IL - Usage of RECs to cover 100% of residential and small commercial electricity usage at no additional cost through a contract with MC2 Energy Services.
- Madison, WI - MadiSUN incentive program provides grant funding, group purchase, and finance options for residential and business customers.
- Urbana, IL - Community sourced solar from former landfill development. Geothermal Group Buy Program.
- Ann Arbor, MI - comprehensive action and implementation plan with aggressive, timebound targets.
- Northampton, MA - Inclusion of open space management practices for soil carbon storage in Climate Resilience and Regeneration Plan

Conclusion

Carbon and renewable energy commitments made in good faith have the capacity to focus community efforts around a common goal and envision a more sustainable future. However, communities with leading commitments and plans do not necessarily demonstrate proportional leadership in action. The Covid 19 pandemic, limited resources, and dependence on community investment have proven challenging to cities that are working to reduce their carbon footprints and switch to renewable energy sources. Evidence of progress is more apparent for goals based on municipal operations in comparison to community-wide targets.

Recommendations

- Assess feasibility and implementation pathways before making major commitments. Focus cities that committed to a target before learning how to meet their mark have experienced a delayed start and are struggling to reach the pace necessary to succeed.

- Lead by example and create roadways for community progress through policy, education, and partnership. Cities with operations-scale goals appear more likely to meet their targets than those with community-wide goals.

- Be selective in goal setting. Identify critical metrics that will inherently drive progress elsewhere without overburdening staff and consuming excess resources.

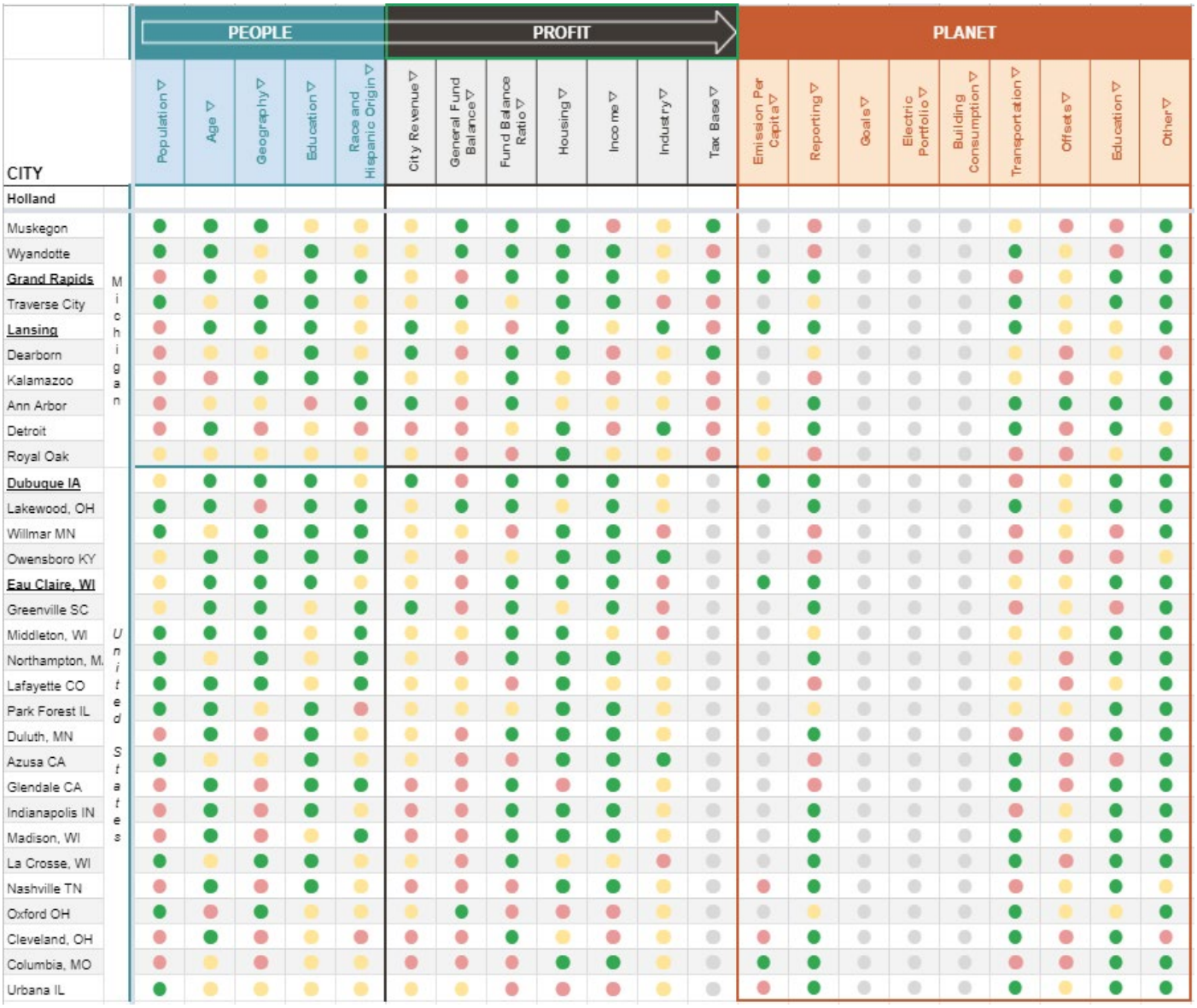
- Leverage existing frameworks and resources available through the USDN, ICLEI, and neighboring communities. City sustainability managers were adamant that “copied” plans and iterations of existing work prove more effective and efficient than plans drawn up from scratch.

- Recognize that energy is just a piece of the larger puzzle. It is a critical element to any sustainability or climate action road map but not all-encompassing in its scope. For the purpose of this benchmarking assignment, attention was directed to carbon and renewable energy goals. Additional groundwork has been laid by each comparison city in other important focus areas including waste, water, air, food systems, land use, natural resources, and accessibility and mobility.

Appendix

Video Link: https://www.youtube.com/playlist?list=PLtw77Rj56UOxFOizxFXkQQQpV0wGTmsWL

Matrix



		PEOPLE					PROFIT							PLANET								
CITY		Population	Age	Geography	Education	Race and Hispanic Origin	City Revenue	General Fund Balance	Fund Balance Ratio	Housing	Income	Industry	Tax Base	Emission Per Capita	Reporting	Goals	Electric Portfolio	Building Consumption	Transportation	Offsets	Education	Other
Holland																						
Muskegon	Michigan																					
Wyandotte																						
Grand Rapids																						
Traverse City																						
Lansing																						
Dearborn																						
Kalamazoo																						
Ann Arbor																						
Detroit																						
Royal Oak																						
Dubuque IA	United States																					
Lakewood, OH																						
Willmar MN																						
Owensboro KY																						
Eau Claire, WI																						
Greenville SC																						
Middleton, WI																						
Northampton, M.																						
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Park Forest IL																						
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Columbia, MO																						
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