



PROSPER
PORTLAND
Building an Equitable Economy

DATE: February 14, 2018
TO: Board of Commissioners
FROM: Kimberly Branam, Executive Director
SUBJECT: Report Number 18-05
Update on the Green Cities Industry Cluster

BRIEF DESCRIPTION OF INFORMATION ITEM

No action is requested; information only.

At the February 14, 2018 Prosper Portland Board of Commissioners (Board) meeting, staff will provide an overview of the Green Cities industry cluster. Over the past five years, Prosper Portland's cluster strategy has contributed to the creation of 11,868 jobs in the four prioritized traded sector industries (industries whose firms sell most of their goods and services outside of the Portland region), accounting for 77 percent of Prosper Portland's total job creation contribution during this timeframe.

Prosper Portland will continue to focus business development, retention, and expansion efforts on the four industry clusters: Technology and Media, Athletic and Outdoor, Metals and Machinery, and Green Cities. These four industries provide the best opportunity for the agency to partner with the business community, harness economic growth, and increase middle-wage job opportunities for Portlanders (see Attachment A for 2017 data on all four industries).

STRATEGIC PLAN ALIGNMENT AND OUTCOMES

Prosper Portland's traded sector economic development work delivers on key objectives of its 2015-2020 Strategic Plan, particularly by supporting quality job growth and collaborating with partners for an equitable economy. The primary emphases for the agency's cluster focus are ensuring that small, local businesses stay and expand in Portland and that women and people of color benefit from business and employment growth. Within the Green Cities cluster, the business retention and expansion work primarily supports small- to medium-sized enterprises to enhance their growth and competitiveness.

The Green Cities cluster is a broad category of companies producing innovative products, services, and technologies that benefit the environment or conserve natural resources. These include smart transportation, renewable energy, energy efficiency, water technologies, building design, and environmental products and services. Portland's anchor Green Cities companies include ZGF, CH2M Hill, Avangrid, ClearResult, PGE, Vestas, and Tetra Tech.

BACKGROUND AND CONTEXT

Prosper Portland has served as the City of Portland's economic development agency since 1981 and has focused on traded sector industry growth for many years. However, the 2009 adoption of the *Economic Development Strategy: A Five-Year Plan for Promoting Job Creation and Economic Growth* (Economic Development Strategy) heralded a new phase of Prosper Portland's work. By prioritizing only four industry clusters and devoting a staff member to each, Prosper Portland has been able to understand

industry needs, build relationships, and tailor programs and initiatives in ways that grow quality jobs for the benefit of the industry and the Portland community at large.

Cluster Profile. Portland’s green cities cluster is thriving due to a strong talent base, entrepreneurial spirit, world-class companies, and continued commitment to sustainability by consumers and leaders. Portland is consistently ranked as one of the most livable and sustainable cities in the world and the City’s work to create strong environmental, climate action, and land-use policies in the 1970s set the stage for this cluster to flourish. In 2016, the Cleantech Leadership Index ranked the Portland metropolitan region fifth in the nation for clean technology leadership, noting strengths in green buildings, energy efficiency, and environmental and advanced transportation solutions. Continued growth of the cluster has the potential to meet many of the City’s economic, environmental, and social goals.

It is difficult to quantify the size of the Green Cities cluster because the federal government’s industry classification system hasn’t fully quantified elements of this relatively new sector. By way of example, employment at Portland’s Indow Windows would be classified under “Building Materials” rather than under manufacture of highly efficient window inserts; software engineers at Jaguar Land Rover working on autonomous vehicles would be classified simply under “Motor Vehicle Manufacturers”. Many of the companies cross over into other priority clusters including 26 percent of the firms solidly in manufacturing.

Using industry standard databases, the industry has 12,634 jobs in Multnomah County while an in-house analysis of city of Portland wage data quantifies the cluster with 18,238 jobs in the city alone.

Workforce Characteristics. The cluster’s workforce consists of a broad cross-section of skill sets and educational backgrounds. Occupations include a wide array of jobs and careers across many disciplines, including manufacturing, sales, installation, repair, and maintenance. Higher-wage occupations tend to be found in mechanical, electrical, and civil engineering. At 25 percent, the Green Cities cluster has the second highest proportion of middle-wage jobs among the target clusters, trailing only Metals and Machinery.

Over the last five years, Green Cities cluster employment has grown by ten percent in Multnomah County, exceeding regional and national growth rates of eight percent and four percent, respectively. Portland’s quality of place is a valuable magnet for talent and businesses in this industry and a contributing factor to its growth. Additionally, Portland’s geographic proximity to Seattle and the San Francisco Bay Area, where environmental policies and renewable energy requirements are driving demand for Green Cities’ products and services, is another factor for cluster growth.

Early Cluster Work. When the Green Cities cluster was prioritized in 2009, staff concentrated on business visits (averaging 50 per year), sharing Prosper Portland’s service offerings and gaining a better understanding of company and industry needs. Knowledge gained from these business visits was used to develop programs and initiatives to support local small business formation and growth – an area where Prosper Portland and industry priorities align.

In 2013, Prosper Portland updated *We Build Green Cities: Advancing Portland’s Clean Technology Economy* (the Green Cities Strategy) to guide agency investments, priorities, and partnerships in a continued effort to advance Portland’s Green Cities cluster work. Staff worked with Clean Edge, a research and advisory firm as well as a cross-industry advisory panel to review Portland’s industry trends and regional ranking; discuss potential sector priorities as well as cross-industry gaps and challenges; and develop suggestions for key action areas. The updated Green Cities Strategies shifted the emphasis from three sub-sectors of renewables (with a particular focus on solar and wind), electric vehicles, and green development to one that is focused more on overarching activities. This shift was driven by the contraction of state and federal incentives, the rise of corporate and non-institutional capital investors,

and the significant rise of new global demand for green products and services setting local firms up for international market expansion opportunities.

Current Cluster Work. With the adoption of the 2015-2020 Strategic Plan, Prosper Portland honed its cluster industry work to focus on middle-wage job growth and enhanced access to quality jobs for all Portlanders. Within the Green Cities cluster, staff's work emphasizes supporting new companies and technologies, particularly those owned by women and people of color.

Prosper Portland prioritizes resources to existing firms that are expanding and to companies considering a new investment in Portland. This is done in partnership with Greater Portland, Inc., the regional economic development agency, and Business Oregon, the State of Oregon's economic development agency. Success has included the retention and expansions of North American headquarters for Vestas and AvanGrid, as well as new investment and jobs created by Jaguar Land Rover, ReachNow, EcoServices, OneEnergy, and Genze. Several of these firms have taken advantage of Prosper Portland's Prosperity Investment Program grant program for tenant improvements as well as the Enterprise Zone tax abatement program, committing to workforce agreements to actively hire and promote youth, women, and people of color.

The Green Cities cluster work focuses resources to entrepreneurs and small enterprises by supporting the commercialization of new technologies and firms. Prosper Portland directly invests in and partners with key community organizations such as Forth and Oregon BEST, which partner with Oregon's higher education institutions, to accelerate research into commercialization.

The Green Cities Strategy calls for increased support for entrepreneurs and highlights the value in promoting innovative firms and their technologies to larger corporations. By leveraging the current trend of corporate investment of money and resources such as office space and mentorship into early-stage companies, Prosper Portland is able to facilitate mutually beneficial relationships. In 2015, Prosper Portland joined Jaguar Land Rover (JLR) to collaborate on JLR's investment in the Innovation Incubator in Northwest Portland with a Public Benefits Agreement focused on equity and inclusion. Since the Innovation Incubator opened, 19 start-up firms have received support including OpConnect, a minority-owned company developing monitoring systems for electric vehicle charging networks, which received both a loan and technical assistance from Prosper Portland. Prosper Portland is also providing assistance to AutoDesk, which is relocating its headquarters from Lake Oswego to the Central Eastside and will also be establishing a residency program in partnership with the Portland Incubator Experiment to support start-ups. EcoTrust, ZGF, and Freshwater Trust are creating new innovative products and driving new spinoffs. Innovation of these new business opportunities is essential for Portland's firms to remain competitive and provide the foundation for the economy to achieve new levels of productivity.

Matchmaking services between Portland firms and larger corporations highlight Portland's technologies and capture strategic operational and investment opportunities driven by needs of larger firms. Recent years have seen the steady and dedicated efforts of many major corporations – from General Electric and Intel to Siemens and BASF – investing in the clean technology sector. These companies are working to transform their business models to keep pace with changes in the market calling for cleaner, more sustainable solutions. Over the last four years, Prosper Portland, in partnership with Oregon BEST, has connected these large corporations with the portfolio of innovators in the greater Portland area and across the state at an event called Eco-Capital Connections. This invitation-only speed-networking event convenes the most active clean technology investors from the Pacific Northwest, Silicon Valley, and global corporations. Approximately 50 companies are selected by staff at Prosper Portland and Oregon BEST for scheduled meetings with leading corporate investors. Staff proactively encourages women and entrepreneurs of color to participate and provides them with technical assistance prior to meeting with potential corporate partners. A recent positive result was the successful \$18,000,000 Series A and B

investment rounds made to Energy Storage Systems, a battery storage company that started at the Portland State Business Accelerator and is now in full production providing 45 middle-wage jobs.

Staff also helps small and medium-sized firms, with priority given to entrepreneurs of color and women, reach new domestic and international markets in order to broaden and increase sales. This is done by exhibiting companies at domestic and international trade shows to develop new trade leads and partnering opportunities. This work leverages assistance and financial resources available through the U.S. Department of Commerce and Business Oregon. While the local market may represent enough sales for smaller firms, it is too small for medium and larger companies, and the only way to expand sales is to export.

On average, companies which export have higher sales, create more jobs, and have higher wages than non-exporting firms. The Green Cities Strategy leverages Portland's green leadership to tell the story of Portland's firms as solution providers and innovators, and to generate further visibility for the region's clean tech ecosystem. There is a growing domestic and international demand for products to help meet new environmental and renewable policy requirements. Internationally, staff has brought local companies to exhibit at trade shows in Germany, Mexico, Thailand, and Japan that focused on the industry sectors including water technologies, advanced transportation, green building products, and renewable energy. At Green Expo, a recent trade show in Mexico City, the five businesses Prosper Portland showcased generated more than \$2,000,000 in sales at the show.

Prosper Portland strengthens Portland's leadership in green development by keeping the City at the forefront of innovation in the built environment by encouraging the deployment of new cutting-edge technology solutions. This includes building strategic partnerships between solution providers and innovation mission-driven institutions (e.g., Portland State University, Oregon Museum of Science and Industry). In addition, Prosper Portland pursues partnerships and projects that help accelerate consumer adoption, such as involvement with PropertyFit, Oregon's first Commercial Property Assessed Clean Energy program launched in partnership with Multnomah County and Energy Trust of Oregon. This unique financial tool is available to commercial, industrial, and multi-family property owners in Multnomah County undertaking energy efficiency, renewable energy, water conservation, and seismic retrofit projects.

Prosper Portland encourages the adoption of new policies at the federal, state, and local level (such as PropertyFit) to drive adoption of new technologies that reduce fossil fuel consumption and increase renewable energy goals, while providing inclusive economic growth and job creation in the Green Cities cluster. Land use planning, transportation policies, and investments are among the most important strategies to address climate change; and Portland's 40 years of policy-driven sustainable development has been fundamental to the Green Cities' global leadership. In 2017, the City of Portland continued to be a leader by adopting aggressive goals to reduce carbon emissions and the commitment to be 100 percent renewable by 2050.

EQUITY IMPACT

The Green Cities cluster work delivers equitable outcomes for Portlanders by prioritizing and encouraging participation by middle-wage employers, women, and people of color. Technical assistance and resources are prioritized to participating firms to address any barriers. This applied to Prosper Portland's Eco-Capital Connections event where pitching assistance was provided to participating entrepreneurs of color and women prior to the meetings with larger companies. In 2014 and 2015, staff helped arrange 30 meetings for minority and women-owned firms with larger companies; since prioritizing those companies, the number of meetings has doubled to 62.

ATTACHMENTS

- A. 2017 Cluster Industry Data

2017 Cluster Industry Data

| | Cluster | Total Current Employment | 10 Yr Historic Employment Growth | 5 Yr Projected Employment Growth | % Middle Wage Jobs | # Middle Wage Jobs | % Quality Wage Jobs | # Quality Wage Jobs |
|---------------|-------------------------------|--------------------------|----------------------------------|----------------------------------|--------------------|--------------------|---------------------|---------------------|
| Traded Sector | ATHLETIC & OUTDOOR | 6,463 | 19% | 8% | 16% | 1,040 | 67% | 4,310 |
| | METALS & MACHINERY | 15,629 | -18% | -5% | 33% | 5,096 | 61% | 9,550 |
| | GREEN CITIES | 12,634 | 11% | 9% | 25% | 3,192 | 83% | 10,445 |
| | TECHNOLOGY & MEDIA | 15,507 | 80% | 19% | 15% | 2,372 | 85% | 13,107 |