DATE: December 9, 2009  
TO: Board of Commissioners  
FROM: Bruce A. Warner, Executive Director  
SUBJECT: Report Number 09-135  

Urban Development Department, Business & Industry Division:  
Introduction to Cleantech and Sustainable Industry Clusters.

EXECUTIVE SUMMARY

BOARD ACTION REQUESTED  
None — information only.

SUMMARY

This report is the third in a series of briefings on the cluster work of the Portland Development Commission (PDC) and focuses on the clean technology (cleantech) and sustainable industry clusters. The report includes a briefing on the industry, including statistics about the strength of Portland’s cleantech and sustainable industry clusters. The report also provides a brief overview of PDC’s cluster development framework and an update on the activities PDC is completing to create work plans for each of the cleantech and sustainable clusters. In addition, this report provides an overview of the initiatives identified in the City’s five-year economic development strategy to support Portland’s position as a leader of the emerging international green economy.

The Portland Economic Development Strategy (Strategy) identified cleantech and sustainable industry clusters as a target group of clusters that will grow employment in the city. The Strategy’s goal is to create 10,000 net new jobs within five years by focusing its job growth and retention efforts on four clusters. Business & Industry Division cluster leads will provide detailed information about PDC’s work within the software and advanced manufacturing clusters through upcoming briefings.

PDC’s current approach to support job growth in the cleantech and sustainable industry clusters is to develop industry lead action plans that will increase Portland’s capacity to be a globally competitive location for cluster firms to start, expand, grow, and attract talent.

BACKGROUND

The Strategy is predicated on the implementation of a cluster approach to create jobs. By enhancing the competitive environment for firms in four target clusters – cleantech and sustainable industries, activewear, software, and advanced manufacturing – the city can foster growth in these promising sectors. In order to effectively pursue a cluster
strategy, PDC will tailor its business retention, expansion, and recruitment efforts to meet the needs of cluster firms. The Business & Industry Division (Division) has embarked on an effort to organize the majority of its work to meet the needs of the clusters as defined by the clusters themselves. In addition to having three separate teams focused exclusively on cluster work, the Division’s business finance team and international business development efforts will have cluster growth as a primary objective.

Cleantech and Sustainable Industries (CTSI) Cluster Definitions

- Based on industry feedback and an economic analysis, PDC includes 5 clusters under the cleantech and sustainable industries umbrella:
  - Electric Vehicles: companies that design or develop electric vehicles, energy storage technology, and vehicle charging infrastructure;
  - Energy Efficiency: companies that design or develop technologies to enhance the efficiency of energy generation and distribution and end-user energy consumption, as well as companies that provide services in connection with diagnosing and implementing potential energy savings;
  - Green Development: companies that design or develop high performing buildings, products, and materials for use in high performing buildings, infrastructure, and systems;
  - Solar Manufacturing: companies that manufacture and assemble solar energy products or that are part of the supply chain for manufacturing solar energy products; and
  - Wind Energy: companies that identify, develop, and exploit wind energy resources, or that manufacture components for initial turbine construction and ongoing turbine maintenance.

Why focus on the Cleantech and Sustainable Industry clusters?

- Statistics¹:
  - Portland is home to a significant number of cleantech and sustainable industry firms. As of 2007, there were more than 19,000 of these cluster jobs in the city.
  - Cleantech and sustainable industry firms are becoming a more important component to our economy:
    - Number of employees working in cleantech and sustainable industry companies grew 40% between 2001 and 2007; and
    - Cleantech and sustainable industry companies generated five percent of Portland’s employment in 2007.

¹ All data from this section is from QCEW data, Oregon Employment Department, 2007 for firms in a study PDC generated in March 2009.
These clusters provide Portlanders with quality jobs:

- 64% of the region’s cleantech and sustainable industry cluster jobs were located in Portland in 2007; and

- For 2007, the average cluster wage in Portland was $69,759. Average cluster wages were $24,743 higher than the average pay for the city during the same year.

- **Companies:**
  - Cleantech and sustainable industry companies connect Portland’s economy to a global marketplace and reinforce Portland’s brand as a place to grow companies that can succeed in the emerging green economy, including:
    - CH2M Hill, Vestas, Iberdrola, ReVolt Technology, Johnson Controls, David Evans & Associates, Skanska USA Building Inc, Gerding Edlen Development, Glumac Engineering, Green Building Services, SERA Architects, Ecos Consulting, Solaicx, SIC Processing; and
    - Outside of the City of Portland, the region includes significant players within the cluster including SolarWorld, Sanyo Solar, SunEdison, and Peak Sun Silicon.

- **Portland is poised to be a leader in the green economy:**
  - Portland’s long standing history of growing tech companies has translated into opportunities for manufacturing firms to specialize in solar manufacturing and in the manufacturing of wind turbine components;
  - Oregon’s existing workforce and our ability to attract highly educated talent aligns well with the needs of these clusters;
  - Oregon’s incentives are growing market demand. These include the Business Energy Tax Credit, the Solar Feed In Tariff, State Energy Loan Program, and the Residential Energy Tax Credit;
  - Portland and the region is consistently ranked as one of the most sustainable cities in North America, creating an ideal launching place for businesses offering sustainable products and services;
  - Portland has the largest per capita number of hybrid vehicles in the U.S., making us an ideal launch location for next generation plug-in hybrid and electric vehicles, with Mitsubishi and others already planning to utilize Portland as a test market for upcoming vehicles;
  - Portland consistently ranks in the top five in number of U.S. Green Building Council LEED certified buildings in North America, which has in turn resulted in the growth of our Green Development cluster and these firms exporting their expertise to other parts of the country and globe; and
Oregon’s history in backing environmentally progressive legislation (including the Renewable Portfolio Standard) while also providing a lower cost business environment has made our region a logical choice for businesses whose technologies focus on reducing greenhouse gas emissions.

**How does the cluster approach allow PDC to be more effective with these clusters?**

- Convening cluster leaders is allowing PDC to gain perspective on commonalities between firms and mechanisms that drive growth across the cluster. Both lead to the creation of industry-driven initiatives that serve a range of firms, instead of meeting the needs of just a few;

- The cluster development approach encourages staff to cultivate a deep understanding of cluster dynamics and strong relationships with cluster leaders. In this way, cluster development demonstrates a commitment to understanding the conditions that influence the growth of highly productive firms and to nurturing their ability to become more competitive. Cluster leaders appreciate this commitment and, in return, commit to working with PDC; and

- Finally, this approach is allowing PDC to target its investment in areas anticipated to have the most lasting economic impact for the City.

**Cluster Framework Overview**

In August, Division staff completed a framework for working with clusters based on best practices throughout the world. This framework will serve as a playbook for PDC’s work with all clusters and ensure that interventions in clusters follow a consistent methodology.

The cluster framework divides the work into two phases that include the following steps:

**Phase I** – Investigate, inventory, and convene clusters to:

- assemble a snapshot of an industry’s growth potential;
- map individual firms active in the cluster, their position in the supply chain, and the system of relationships that make the cluster competitive in the region; and
- develop working partnerships with cluster entrepreneurs. These relationships become important for identifying cluster opportunities and gaps, as well as for creating an accurate asset map of resources in the city that contribute to its economic competitiveness and creating well-calibrated initiatives.

**Phase II** – Diagnose, act, and evaluate to:

- synthesize findings from quantitative and qualitative research;
- formulate a strategic plan that cluster entrepreneurs can have ownership of and collectively implement so that government resources are well leveraged;
- implement action plan; and
• determine if actions are meeting objectives and if cluster is capable of self-sustaining intervention.

Progress Made to Organize the Cleantech and Sustainable Industry Clusters

• Investigate:
  o As part of the Portland Economic Development Strategy and ongoing economic trend analysis, PDC has identified indicators to measure the success of this cluster and have benchmarking statistics from which to measure future growth.
    ▪ PDC annually reviews the location quotient, shift-share, average annual wages and average annual payroll for these clusters.
      • This work presents some difficulty: there are no federal, state, or local definitions to distinguish “green” companies from their counterparts. Voids in industry classification and occupation codes make it impossible to separate cleantech and sustainable firms from their non-green cohorts and standardize definitions for cluster, making it highly difficult to create a completely accurate snapshot of firm activity.

• Inventory:
  o A preliminary Electronic vehicles directory is complete;
    ▪ Currently developing a supply chain map to identify gaps and opportunities to grow existing firm capacity or to recruit firms to fill in gaps.
  o Currently developing a statewide database of wind energy cluster companies, suppliers, and manufacturers to build awareness of industry and build collaboration;
  o A green development inventory project has begun. PDC is working to build support for the effort with regional partners;
  o An inventory of solar companies is complete; and
    ▪ Currently developing a supply chain map to identify gaps and opportunities to grow existing firm capacity or to recruit firms to fill in gaps.
  o The process has begun to develop an inventory of energy efficiency firms.

• Convene:
  o Each of the clusters, except green development, is in the process of convening cluster leaders;
  o Electric vehicles:
    ▪ Currently holding monthly steering committee meetings and quarterly roundtables to identify, support, and move forward with group priorities.
      • Have held six steering committee meetings and three roundtables since beginning of calendar year. Next roundtable is scheduled likely 1Q 2010; and
      • Also working to expand participation on an on-going basis.
  o Wind energy:
    ▪ PDC hosts monthly meetings of stakeholders to collaborate on industry events and initiatives and to share information on emerging wind cluster groups, legislation, and projects.
Also working to encourage dialogue between the wind energy cluster and the advanced manufacturing to broaden the scope of each and create opportunities to strengthen the local advantage for each.

○ Solar:
  ▪ Currently engaging key partners and working to secure commitments from government and other key private sector partners to participate in two cluster roundtables.
    • Roundtables to be held in December and January
  ▪ Formally coordinating convening actions with existing industry association (Oregon Solar Energy Industry Association - OSEIA) and Business Oregon (OBDD)

○ Energy efficiency:
  ▪ In the process of scheduling a session with partners to identify compelling reasons for cluster participants to convene, a necessary precursor to gaining support for engagement activities.

• Act:

○ Green Development:
  ▪ Based on industry interest, PDC has put its support behind the industry-championed Oregon Sustainability Center, which will be the nation’s first living building and highlight the specialization of Portland’s green development firms.
    • Staff from across PDC’s Urban Development Department support this initiative.

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<tr>
<th>Portland Economic Development Cleantech and Sustainable Industry (CTSI) Clusters Initiatives</th>
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<tr>
<td><strong>Phase 1 of Cluster Development:</strong> Investigate, inventory and convene clusters</td>
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<td><em>Facilitate employment growth of CTSI sectors through extensive cluster organizing and implementation of industry-driven action plans.</em></td>
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<td><strong>Progress to Date</strong></td>
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## Role of Partners

- Oregon Business Development Department is co-leading all of these cluster activities with PDC. Funding and leading development of statewide database of wind cluster companies and suppliers;
- Greenlight Greater Portland has produced a marketing brochure to promote the region’s Solar Manufacturing cluster and is developing collateral material for the Green Development and Electric Vehicle clusters;
- Regional Partners, including the Cities of Hillsboro, Gresham and Salem are actively engaged in the Solar cluster activities;
- The Wind cluster activities have several partners including the Oregon Manufacturing Extension Partnership, Worksource Oregon and numerous others; and
- We are creating partnerships with existing industry association where relevant, including the Oregon Solar Energy Industry Association, the Wind Industry Alliance, Oregon Small Wind Energy Alliance and the Pacific Northwest Defense Council.

## Expand demand for energy efficiency products and services through investment in retrofits of existing building stock.

**Deliverables** for the Portland Clean Energy Works program include:

- Providing easy access to financing and reliable service providers to enable approximately 100,000 homeowners to retrofit their homes to maximize energy efficiency; and
- Marketing campaign to increase awareness of the program and that energy savings will pay for the full cost of the upgrades, resulting in zero out-of-pocket costs for homeowners.

## Progress to Date

- Clean Energy Works is utilizing $2.5 million of the federal stimulus package to implement a pilot program for 500 homes.

## Phase 2 of Cluster Development: Diagnose, Act and Evaluate

### Role of Partners

- The City of Portland Bureau of Planning and Sustainability is lead organizing agency for the project;
- Shorebank Enterprise Cascadia, Portland General Electric, and Northwest Natural are coordinating the financing and repayment aspects of the project; and
- Green For All and Work Systems are developing programs to ensure an adequate supply of trained and skilled workers.

### Progress to Date

- The green development cluster: Oregon Sustainability Center—private sector engagement and involvement in project; and
  - Eco Districts feasibility pilot studies.
  - Permanent networking space for cluster space businesses (VOISBox Ballroom).

- Green development cluster: Oregon Sustainability Center, meetings with private sector partners to discuss in-kind donations to the project; Opening of VOISBox Ballroom (Voice for Oregon Innovation and Sustainability) at Leftbank Project in January 2010.
### Role of Partners

- Oregon University System is taking a lead role in the Oregon Sustainability Center project with plans to secure $80 million in bond financing;
- The City of Portland Bureau of Planning and Sustainability and the Portland + Oregon Sustainability Institute are partnering on the Eco Districts;
- Voice for Oregon Innovation and Sustainability (VOIS) is in the final stages of building out the VOISBox Ballroom and will manage the facility upon its completion.

### Conclusion

Firms within the cleantech and sustainable industry clusters are dynamic and evolving rapidly. PDC is poised to respond to the needs of cluster firms and is committed to developing the partnerships needed to implement the Strategy’s initiatives.

### ATTACHMENTS:

- A. Solar Manufacturing Cluster – Convene Stage Work Plan (Draft)
- B. Electric Vehicle Cluster – Convene Stage Work Plan (Draft)
- C. Wind Energy Cluster – Convene Stage Work Plan (Draft)
- D. Energy Efficiency Cluster – Inventory Stage Work Plan (Draft)
- E. Energy Efficiency Cluster – Convene Stage Work Plan (Draft)
- F. Green Development Cluster – Act Stage Work Plan (Draft)
Solar Manufacturing Convene Project

*Project Objective:* Coordinate with existing solar organizations to formally convene the cluster through meetings, surveys, and roundtable events. The purpose of convening is to confirm scope and definition of the solar cluster, identify needs, opportunities, obstacles, and areas of mutual interest for sustaining and growing the cluster.

**Project Manager:** Colin Sears  
**Project Staff:** Pam Neal  
**Project Sponsor:** Colin Sears  
**External Project Partners:** OBDD and OSEIA. Other may include: Cities of Gresham and Hillsboro, SEDCOR, Portland General Electric and Pacific Power.

**Project Type:** Industry & Business Development  
**Budget Code:** 101-242160-H24015  
**URA:** All

### KEY ACTIONS: NEXT SIX MONTHS

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<tr>
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<tr>
<td>Coordinate with Government and NGO partners to mutually convene the cluster</td>
<td>Engage key partners in Solar Manufacturing cluster convening efforts. Secure commitments from government and other key partners to participate in two cluster roundtables.</td>
<td>COMPLETED Have received firm commitment from OBDD and OSEIA to co-sponsor roundtable convening events.</td>
<td>10/30/09</td>
<td>C. Sears</td>
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<tr>
<td><strong>Develop Questionnaire to solicit input from cluster firms prior to first roundtable in order to inform the roundtable agenda</strong></td>
<td>Develop questionnaire to identify incentive for cluster convening common. Review and confirm focus scope/definition and participants. Identify potential synergies and conflicts with OSEIA activities/members.</td>
<td>To be developed in November and distributed to invited cluster roundtable participants prior to the first solar manufacturing cluster roundtable.</td>
<td>12/4/09</td>
<td>C. Sears</td>
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<td><strong>Formal coordination of convening actions with existing industry association (OSEIA)</strong></td>
<td>Formal communication with OSEIA Board on November 9 to communicate cluster convening process for upcoming months and solicit industry participation.</td>
<td>COMPLETED Topic included on 11/16/2009 OSEIA Board agenda. Note: outreach to SiC Processing and Solar World conducted at 24th European PV Solar Conference &amp; Exhibition with positive reaction.</td>
<td>11/16/09</td>
<td>C. Sears</td>
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<td><strong>Convene two roundtable sessions with key industry players</strong></td>
<td>Convening of key industry players, including: SiC Processing; Solaix; Mr. Sun Solar; Solar World; Sanyo; Peak Sun Silicon, SunEdison and PV Powered. Roundtables will identify cluster needs, opportunities and obstacles facing the industry cluster.</td>
<td>In progress. Roundtables to be held in December 10 and mid-January.</td>
<td>January 2010</td>
<td>C. Sears</td>
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<td><strong>Conduct de-brief session with key industry players to determine next steps.</strong></td>
<td>De-brief of cluster roundtable sessions with key industry players. Identify areas of strongest mutual interest.</td>
<td>To be conducted after two roundtable events are held.</td>
<td>February 2010</td>
<td>C. Sears</td>
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Electric Vehicle Cluster Convene Project: Work Plan

Project Objective: Continue convening the emerging Electric Vehicle (EV) cluster within the City of Portland, the region and state. This initiative is looking at the cluster statewide because of its emerging nature and major players in the southern part of the state. The end result of this cluster organizing effort will be to identify incentives for convening and confirm the cluster definition, scope, and key players. Convening the cluster will help identify cluster needs, opportunities, and obstacles and highlight areas of mutual interest for cluster firms.

Project Manager: James Mast

Project Staff: James Mast, Brandon Lesowske

Project Sponsor: Colin Sears

URA: Citywide- no specific URA

External Project Partners: OBDD (Lead: Mark Brady), OBC (Jeremy Rogers)

Budget: $50,000

Project Type: Industry & Business Development

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KEY ACTIONS: NEXT SIX MONTHS

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<tr>
<td>Hold monthly steering committee meetings and quarterly roundtables to gather support and move forward with group priorities.</td>
<td>Continue to engage key partners in EV cluster to confirm cluster participants, discuss cluster needs, obstacles, and opportunities. Have held six steering committee meetings and three roundtables since beginning of calendar year. Next Roundtable is scheduled likely 1Q 2010.</td>
<td>In progress. Strong partnership established with OBDD (Mark Brady)</td>
<td>ongoing</td>
<td>J. Mast</td>
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<td>Evaluate and map out supply chain</td>
<td>To understand how firms in the cluster interact with one another. Identify the existing opportunities and gaps in the cluster. Confirm the cluster definition and players. The deliverable will be a supply chain map for the EV cluster companies.</td>
<td>January 2010</td>
<td>J. Mast</td>
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<td>Identify and engage new members to the Roundtable</td>
<td>There are some companies that have been identified but have not been participating in the group discussions. The purpose is to identify areas of mutual interest for cluster firms, and discuss cluster needs.</td>
<td>October 2009, ongoing</td>
<td>J. Mast</td>
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<tr>
<td>Initiate a cluster development strategy</td>
<td>Initiate a cluster strategy that supports PDC functions and supports the priorities already established by the cluster. Hire consulting firm to look at other cluster models and determine exact needs for EV cluster. This will help identify areas of strong mutual interest between the cluster and PDC/State.</td>
<td>February-March 2010</td>
<td>J. Mast</td>
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CTSI: Wind Cluster Convene Project: Work Plan DRAFT

*Project Objective:* Identify cluster needs, opportunities, and obstacles for the wind cluster. Identify incentives for partnerships between existing cluster groups and encourage increased private sector cooperation with advocacy groups, manufacturers, utilities, and the public sector.

**Project Manager:** Pam Neal

**Project Staff:** Sara Bedinghaus

**Project Sponsor:** Colin Sears

**External Project Partners:** Oregon Manufacturing Extension Partnership (OMEP), Worksource Inc. (WSI), Oregon Business Development Department (OBDD), Pacific Power, Portland General Electric (PGE), NW Wind Industry Alliance, Pacific Northwest Defense Council

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<td>Convene one industry roundtable to include turbine manufacturers,</td>
<td>Confirm that the industry wants to continue working on existing efforts and any other top priorities.</td>
<td>In progress. Currently working with OBDD to identify 6-8 industry contacts and develop agenda. Will evaluate whether additional meetings need to be set up once priorities have been confirmed.</td>
<td>1/31/09</td>
<td>Pam Neal</td>
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<td>developers, owner/operators, component and service suppliers to</td>
<td>Determine if the industry wants to continue supply chain efforts thru current industry association efforts.</td>
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<td>confirm top priorities</td>
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<td>Support emerging cluster organizations and encourage cooperation among groups</td>
<td>Several wind advocacy organizations are currently forming. PDC will support each organization by offering support and attending meetings and events. By building knowledge of external cluster convening efforts, we can best leverage and allocate resources, and encourage collaboration among the various groups.</td>
<td>Currently meeting with associations monthly. Working with the NW Wind Industry Association to develop agenda and potential attendees for a supply chain conference on December 18, 2009. Working with Northwest Environmental Business Council on developing agenda and speakers for an energy conference on May 21 &amp; 22, 2010. There will be several topics on how to supply to the industry including opportunities, requirements and financing.</td>
<td>5/30/09</td>
<td>Pam Neal</td>
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<td>Broaden cluster scope by engaging with manufacturing associations</td>
<td>There are many synergies and opportunities for collaboration between manufacturers and wind companies. By encouraging dialogue between the two clusters, we broaden the scope of each and create opportunities to strengthen the local advantage for each.</td>
<td>OMEP currently is involved in monthly cluster meetings. Connectory database comes from a partnership between public sector leaders and PNDC. Assisting with the collection of information on NW manufacturing expertise requested by several large wind turbine manufacturers.</td>
<td>6/30/10</td>
<td>Pam Neal</td>
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**CTSI: Energy Efficiency Cluster Inventory Project: Work Plan**

*Project Objective:* To build on the significant work of gathering names of firms in the cluster that has already been completed in order to create an initial cluster inventory and draft map of how firms relate to each other and the overall energy industry.

**Project Manager:** John Tydlaska  
**Project Staff:** John Tydlaska  
**Project Sponsor:** Colin Sears  
**External Project Partners:** Climate Solutions, Energy Trust of Oregon (Anticipated), Northwest Energy Efficiency Council, Oregon Business Council

**Uber-Riding Agent (URA):** All  
**Project Type:** Industry & Business Development  
**Project Attorney:** N/A  
**Budget Code:** 101-242160-H24015

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| Establish buy-in from external project partners for their support of energy efficiency cluster work. | Energy efficiency organizations have been in existence for many years, and the process of creating an inventory and map of the firms as well as engaging the appropriate individuals from the cluster will proceed much more quickly and effectively by leveraging existing knowledge bases and relationships. | COMPLETED  
I have met with and received enthusiastic buy-in from Climate Solutions, the NEEC, the OBC, and ETO. | 11/2/09                | John Tydlaska |
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<tr>
<th>Task</th>
<th>Description</th>
<th>Subtasks</th>
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| Develop an inventory of appropriate energy efficiency firms and a draft map of their relationships to each other and the energy industry. | Much of the pertinent expertise in energy efficiency is diffused throughout the green building industry and other related industries, requiring a further screening process through the cluster inventory to narrow the portion of the broader CTSI cluster that comprises the energy efficiency cluster. Determining the services and products that are needed for making existing buildings more efficient and comparing that with a robust inventory of existing Portland firms will help identify gaps in the energy efficiency value chain that can be filled locally and provide an initial perspective for the individuals who will be convened to examine the cluster’s needs. | Subtasks:  
- Review, resort, and reclassify firms identified in the existing CTSI inventory into categories that are more relevant to the evolving definition of the energy efficiency cluster to create an initial inventory of regional firms. (COMPLETED)  
- Distribute initial inventory to external project partners for their feedback and comments. (11/16/2009)  
- Incorporate partner comments and finalize cluster inventory. (12/04/2009) | 12/04/09 | John Tydlaska      |
| Identify existing and potential policies and programs impacting cluster | The energy efficiency industry is likely to be impacted greatly by policies around carbon emissions, and it is important to understand the current policies impacting energy efficiency as well as the rest of the energy industry to understand what policy action can be undertaken to put Portland in an appropriate leadership position. Other groups, such as the Climate Prosperity Project and Climate Solutions have begun developing such policy and program inventories. | The Climate Prosperity Project is developing an inventory of such policies and programs that should be able to be adapted fairly easily. It is unclear whether CPP will create such an inventory in the coming weeks. If they have not made progress by 12/01/09, I will begin to put one together. Because the Convene Stage is not dependent upon completion of this task, the timing of this task will not interfere with the timing of the Convene workplan. | tbd       | John Tydlaska      |
**CTSI: Energy Efficiency Cluster Convene Project: Work Plan**

*Project Objective:* To identify the appropriate individuals from cluster firms that are to be convened, determine the most significant business needs, impediments and opportunities that impact the entire cluster and determine the initial willingness of cluster members to prioritize these issues and address each one as a cluster.

**Project Manager:** John Tydlaska  
**Project Staff:** John Tydlaska  
**Project Sponsor:** Colin Sears  
**External Project Partners:** Energy Trust of Oregon (anticipated), Northwest Energy Efficiency Council  
**URA:** All  
**Project Type:** Industry & Business Development  
**Project Attorney:** N/A  
**Budget Code:** 101-242160-H24015

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| **Identify compelling reasons for cluster members to be willing to convene and work with other cluster members.** | A brainstorming session with thought leaders in the cluster will help determine the business reason for why a broad range of cluster members would be willing to work together. Expected deliverables:  
- List of additional cluster members to be invited to participate  
- Identification of brainstorming | Subtasks:  
- Identify and contact 6 to 8 thought leaders for strategic brainstorming session (11/20/09)  
- Conduct brainstorming session at PDC to identify initial list of compelling cluster-wide needs (12/3/09) | 12/3/09 | John Tydlaska |
| Convene industry representatives to identify potential cluster leaders and determine willingness of cluster to address cluster-level issues. | Present the cluster with results of brainstorming session regarding potential cluster-wide issues, solicit feedback regarding completeness and appropriateness of list, determine interest in moving forward as a cluster. Expected deliverables:  
- List of specific cluster-wide opportunities and barriers  
- List of individuals willing to address each issue in a subgroup and leader for each subgroup  
- Specific meeting time for each subgroup to diagnose each issue precisely  
- Agreed-upon prioritization and timeline for addressing each issue  
- Agreed-upon frequency of meetings for broad cluster representatives (semi-annual?) to check in on progress of subgroup(s) | Subtasks:  
- Reserve PDC Commission Room for 1/7/10 (11/17/09)  
- Send invitation to cluster member invitees from both PDC and cluster thought leaders (12/8/09)  
- Develop draft agenda for cluster meeting (12/30/09)  
- Circulate agenda to cluster thought leaders (1/5/10)  
- Convene cluster members (1/7/10)  
- Circulate memo of agreed purpose, goals, and next steps to all industry participants (1/15/10) | 1/15/10 | John Tydlaska |
CTSI: Green Development Cluster Act Project: Work Plan

Project Objective: Identify the strategic intervention(s) that have been diagnosed by the cluster of green building firms that self-convened previously and engage in implementing the identified interventions by addressing critical impediments and exploiting opportunities regarding those interventions.

Project Manager: Colin Sears and John Tydlaska

Project Staff: John Tydlaska and Brandon Lesowske

Project Sponsor: Colin Sears

External Project Partners: Portland Sustainability Institute, Bureau of Planning and Sustainability

Budget Code: 101-242160-H24015

KEY ACTIONS: NEXT SIX MONTHS

<table>
<thead>
<tr>
<th>Task</th>
<th>Purpose/Description</th>
<th>Status</th>
<th>Target Completion Date</th>
<th>Owner</th>
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<tr>
<td>Identify strategic interventions diagnosed by cluster.</td>
<td>Firms from the green building industry have convened in the past for the purpose of selecting and pursuing cluster-wide projects. Because many different efforts have spun off from these activities, we must evaluate the various efforts to determine which ones relate most directly to the cluster.</td>
<td>COMPLETE</td>
<td>10/23/09</td>
<td>Colin Sears and John Tydlaska</td>
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<tr>
<td>Task Description</td>
<td>Details</td>
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<td>Develop work plan for PDC engagement with development of the OSC.</td>
<td>The OSC has been identified as an overall top priority of the Business and Industry Division, and as such, Colin has been developing a work plan specific to PDC’s involvement with the OSC.</td>
<td>The work plan is in the final stages of being finalized.</td>
<td>11/20/09 Colin Sears</td>
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<td>Meet with key players in the development of ecodistricts.</td>
<td>P+OSI and BPS are the principal organizations working with the green development cluster to examine the feasibility of and begin planning for development of ecodistricts. It is necessary to meet with both of them to determine how PDC can engage most effectively in advancing this effort.</td>
<td>70% COMPLETE. I have met with Rob Bennett to discuss his work to date, and I have met with Michael Armstrong to discuss the role of BPS and what staff from BPS will take a lead role in developing the concept and framework for ecodistricts. The remaining subtask is to meet with additional individuals Rob and Michael identified as key players.</td>
<td>11/20/09 John Tydlaska</td>
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<td>Develop work plan for PDC engagement with development of ecodistricts.</td>
<td>Based on the input from the meetings with key players in ecodistricts, John will develop a work plan to make clear what deliverables PDC will produce and by what dates.</td>
<td>Not started. To begin following meetings with key players. Three work weeks should allow sufficient time to develop a detailed work plan, but with John’s scheduled absence from the office for a week in November, it will be four calendar weeks from the completion of the prior task until completion of this task.</td>
<td>12/18/09 John Tydlaska</td>
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<td>Implement work plan for PDC engagement with development of the OSC.</td>
<td>When the work plan is finalized, Colin will execute all actions of the work plan to advance the development of the OSC.</td>
<td>Commencement of this task is dependent upon finalization and sign off of the work plan.</td>
<td>Tbd Colin Sears</td>
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