

Growing the Green Economy

Association of Washington Cities Center for Quality Communities

Clean Technology R&D and Industry Research

Scope of Services

January 26, 2018

PROJECT BACKGROUND

The Association of Washington Cities (AWC) Center for Quality Cities desires an assessment of clean technology assets and opportunities in Washington state across four identified sectors: 1) energy; 2) water; 3) agriculture & forestry; and 4) building materials. Analytics will include a landscape survey of existing capabilities, assets, and technologies present in each of these sectors and an assessment of how Washington's current strengths align with global trends in clean technology demand. Findings will help inform a broader dialogue to be led and facilitated by the Center for Quality Cities on how economic development practitioners, businesses, tribes, NGOs and other stakeholders can craft policy to support these economic opportunities.

PROJECT APPROACH

Our work will begin with a meta-analysis of U.S. and global clean technology trends and capabilities in each sector. Our work will make intensive use of industry reports and expert engagement and feedback. Work will culminate in an interim report documenting key findings by sector, including domestic and global technology trends and sources of demand and sources of clean technology and climate change mitigation research & development in the U.S. and abroad.

We will next perform an assessment of capabilities and assets in Washington state. We will whenever possible leverage existing research on each industry, including past reports, research products, news articles, and other relevant sources. We will augment these findings with a data-rich understanding and presentation of leading firms, higher education institutions and economic trends in Washington, through use of state and federal data sources, private vendor business data provides (e.g., Hoovers), and auxiliary information. We will also, in coordination with the AWC and project team, engage with industry leaders to probe clean tech innovation and technology issues in each

sector, validate preliminary findings, and solicit feedback on additional areas to explore.

We will then use our findings from above to assess existing potential alignment of Washington-based industries and research with current and future U.S. and global demand. Findings will be presented in a report format, with exhibits, technical addenda, succinct executive summary, and a matrix helping stakeholders map assets to opportunities.

The work plan below delineates key tasks and budget requirements.

WORK PLAN

Task 1. Meta-Analysis of Global Trends in Clean Technology R&D and Demand

This task will involve an extensive review and consultation with existing research, interviews, and other sources to produce an assessment of leading trends in clean technology R&D and demand. Preliminary findings will review key sources of clean technology R&D and demand in the U.S. and globally across each industry sector. Subtasks to include:

- **Literature review.** Intensive use of existing research on clean technology R&D, higher education and global demand.
- **Interviews with industry experts.** Based on a literature review, and in coordination with the project team, we will reach out to experts to validate and expand on preliminary findings.
- **Data summaries.** Summary statistics on leading R&D and industry trends, in the U.S. and globally. Work will leverage global trade data, industry data published by the IMF, World Bank, OECD, and other relevant sources.

Schedule: March 2018

Task 2. Asset Inventory in Washington

The next phase of our work will entail a comprehensive review of clean technology assets and capabilities in Washington. Subtasks to include:

- **Industry profiles.** Data and information on leading trends and capabilities across each sector in Washington. Analytics to include workforce human capital, investment, R&D, and other industry metrics specific to clean technology capabilities and applications in each sector.

- **Innovation and research.** Information on leading clean technology products, services, and innovation across each sector happening in Washington.

Schedule: April 2018

Task 3. Opportunity Assessment

Based on analytics produced above, we will develop an assessment of how well positioned Washington businesses, organizations, research centers, and other entities across sector are to take advantage of leaning clean technology trends and opportunities. Analytics will include a matrix helping stakeholders map these opportunities to Washington state assets, as well as a means to understand where gaps may exist and investment potentially needed.

Schedule: May 2018

Task 4. Draft and Final Reports

Draft and final reports to include technical addenda, an executive summary, and supporting documentation.

Schedule: June 2018

