

Conclusions

The analysis conducted to date in support of this report clearly demonstrates that the members of the PCC have a very strong foundation upon which to build a prosperous and globally competitive clean economy. That being said, it would be wrong to assume that this future will happen of its own accord, or that the region's abundant natural resources will sustain its current high standards of living or insulate it from the stresses and shocks present in the larger global economy. The clean economy and its employment opportunities can be won or lost depending on decisions made now.

As noted earlier, the optimal policy framework needed to achieve the clean economy is more than an energy strategy, or an economic stimulus plan, or a human resource development plan.

Each of these dimensions is involved, but in reality the clean economy is much, much more. In essence it involves establishing a competitive economic position in a resource and carbon-constrained world, a world that must constantly adapt to the realities of shifting trading relationships, accelerating urbanization and population growth, climate change impacts, and geo-political stresses arising from inequities in the availability of life-sustaining basics such as access to clean water and arable land.

Achieving the clean economy requires vision, leadership, and careful planning. It also requires working in concert with the region's trading partners and neighbors. By embracing partnerships and building upon existing strengths of the PCC, the job-creating opportunities are very promising indeed.

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Based on the foregoing commentary, the following conclusions are put forwarded:

1. The transition toward a cleaner economy is well under way throughout the West Coast region, and accounts for a significant number of jobs in each jurisdiction today, and demonstrates higher-than-average job growth potential in several key sectors compared to the economy as a whole.

2. Progressive policy actions could expand clean economy GDP contributions in the region to \$142.7 billion by 2020, with investment opportunities ranging between \$147 and \$192 billion (in \$2010) and the potential of capturing significant market share from the estimated \$2.3 trillion in global clean economy revenues in 2020. Clean economy employment could grow by more than 200% to an estimate 1.03 million new jobs (net) by 2020.

3. The areas of highest potential in terms of job growth, investment, and industrial development include the following:

i. **Energy Efficiency & Green Building** – In particular, related to whole building retrofitting, energy efficient equipment, and new, high-efficiency green building construction.

ii. **Environmental Protection & Resource Management** – In particular, greater recycling and reuse, more efficient infrastructure, and the enhancement of measures to promote the conservation of natural resources and the restoration of damaged ecosystems.

iii. **Clean Transportation** – In particular, electric and alternative fuel vehicles, enhanced public transit infrastructure, and lower-carbon intensive fuel sources such as natural gas.

iv. **Clean Energy Supply** – In particular, distributed energy systems, smart grid infrastructure and transmission, and enhanced integration of energy from clean and renewable sources.

v. **Knowledge & Support** – In particular, educational institutions for workforce skills development and strengthening centers of excellence that build on the knowledge base of the clean economy.

4. Policy, programming, and financial impediments exist throughout the West Coast region that limit the smooth transitioning toward a cleaner economy. Of these, the most pressing impediments are:

- i. Too few forward-looking strategic plans and long-term public policies that are essential to sustain and grow the clean economy;
- ii. The lack of available financing or equity ownership by households and small commercial establishments resulting in the sub-optimizing of investments in energy efficiency and green building technologies;
- iii. A widespread lack of appreciation of the true costs of inaction in dealing with climate change impacts and of the current availability of clean solutions that would accelerate climate adaptation investments and strengthen climate resiliency across the region; and
- iv. Knowledge gaps about the availability of clean technology solutions for business and government that could dramatically improve economic performance and enhance profitability.

5. The enabling measures best able to remedy these constraints and to facilitate a smoother transition toward a cleaner economy include the following:

- i. Clear and stable policy frameworks that encourage private sector investment and public sector support for demonstration projects and the early adoption of clean technologies.
- ii. Financial assistance programs that facilitate investments in energy efficiency and green building for households, commercial establishments, and public buildings, including greater use of municipal bonds to finance clean economy investments; and
- iii. Broad-based public awareness, post-secondary education and training, and K-12 education programs that build a wider appreciation of the clean economy and better prepare civil society for related employment opportunities.



6. The foregoing analysis has clearly demonstrated that there are important synergies and advantages associated with coordinated joint actions within and across the PCC. Additional opportunity areas for potential future collaboration include:

- i. Recognizing the growing importance of renewable energy to power the clean economy and working cooperatively to encourage further private sector investment in the region's clean energy sector through supportive public policies that facilitate the deployment of clean energy supply throughout the West Coast region.
- ii. Promoting the use of "highest" green building standards for public buildings, particularly with respect to energy efficiency retrofits and new building construction; promoting the use of zero-net energy building design and practices; and encouraging private sector support for innovative financing mechanisms.
- iii. Building on the West Coast Green Highway initiative by expanding on additional, region-wide clean transportation initiatives that include using joint purchasing power for low carbon vehicles where feasible; integrating electrification and /or alternative fuel use in port activities and coastal ferry systems; exploring the regional benefits of high-speed rail corridors; and lowering the carbon footprint of long-haul trucking operations.
- iv. Continuing to collect and share data and information for use in monitoring efforts and for developing the region's climate adaptation and resiliency strategies, including the potential to further develop emergency response plans and create a region-wide natural capital index.

v. Establishing a resource recovery initiative to develop a market for recycled goods and deconstruction resources, diverting potentially reusable material away from landfills and creating immediate employment and business opportunities.

vi. Harmonizing environmental and energy efficiency standards and requirements, where appropriate, to accelerate clean economy initiatives and to provide greater levels of transparency, predictability, and certainty to businesses, entrepreneurs, and private sector investors.

vii. Creating a network of existing centers of excellence to facilitate greater collaboration on research and development by lowering associated costs and improving information sharing.

viii. Attracting and retaining high caliber workers, researchers, and investors from around the world by developing shared vision and leveraging marketing and branding efforts to promote the strengths of the West Coast region's clean economy.

7. The research supporting this report suggests that the clean economy is the next global economic opportunity and there is nothing else on the near term horizon to match it. For the West Coast region, the clean economy and the policies that drive it are a path to global competitiveness and prosperity.

Deepening the Analysis – Next Steps:

This report provides a glimpse into the West Coast region's potential clean economy future. Further analysis will be needed to develop the specific mechanisms that will accelerate this future and make the region's clean economy a competitive reality.

Modeled scenarios to 2020 for the market opportunities identified in this report derived from previous analyses that are not directly tied to the West Coast region and require further study to link them more clearly with region-specific policy actions. Next steps should include:

- Baseline analysis of existing and BAU activities to assess benefits of current low carbon fuel and renewable portfolio standards, green building policies, and other planned activities, as well as to provide baselines for measuring incremental new policy actions.
- Assessments of market and data-driven policy options to grow the clean economy, including immediate, mid-term, and long-term micro and macroeconomic impacts estimates.
- Investment flow analyses for GDP, income, and employment, as well as detailed assessments of investment and revenues for specific clean economy market segments.

These analyses for individual jurisdictions and for the region as a whole will help turn market potential into economic realities.