

## **Power Play**

### ***Accelerating Towards a Sustainable Energy Future***

Sustainable Energy will be a reality when economies and corporations have access to competitively priced power and fuels, generated in a fashion that protects the environment while reducing reliance on non-renewable resources.

*The goal of Sustainable Energy is straightforward; the hard part is getting there.*

Economic transitions are usually left to the marketplace, with some targeted public policy and fiscal interventions. If Canada and the World had the luxury of time, such a conventional approach in the pursuit of sustainable energy may well work. Instead, we face a climate of urgency where the imperative of securing clean energy supply is of paramount economic importance.

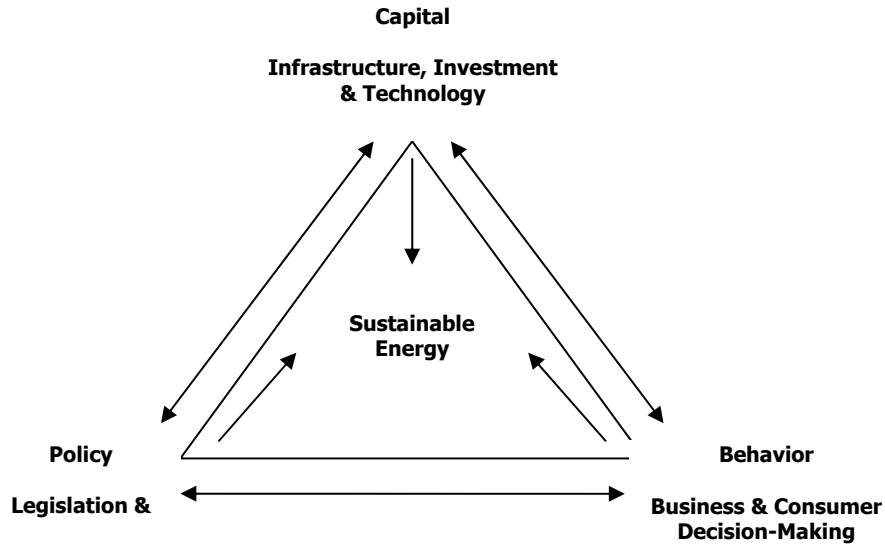
Simply put, 'Business as usual' in times of energy supply bottlenecks, environmental risks like climate change and global security concerns simply doesn't cut it. It's time to approach the goal of a Sustainable Energy future with a new market mindset that has a much higher likelihood of success.

Learning from the history of energy evolution (Peter Tertzakian's Book ***A Thousand Barrels a Second*** is a powerful read), and based on evidence of where/how sustainable energy change is underway, *SEE Insight* argues that a new *Energy Change Dynamic* is emerging. *SEE Insight* calls this the '**Delta of Sustainable Energy**'. It looks like this.

Three forces interplay in the domain of energy: Capital, Behavior and Policy. Each shape how new energy innovations (soft and hard) are developed and become commercially-viable. Energy production and consumption patterns are very complex. Energy markets are characterized by huge capital investments and major infrastructure decisions; responsive to short and long term industrial, institutional and individual buyer behaviors and preferences.

The new *Energy Change Dynamic* can catalyze these three forces – Capital, Behavior and Policy – such that they are working synergistically: at the same time, and in the same direction. In essence, the speed and impact of the next energy evolution will be a consequence of how well the forces of Capital, Behavior and Policy complement each other. Anything else will be sub-optimal. For example, providing incentives for the development of hydrogen technologies without determining how a continental hydrogen infrastructure backbone might be established seems futile. Investment in rapid transit that is not supported by changes in mobility behavior, and/or policies promoting public transportation, represents a poor use resources.

The 'Delta of Sustainable Energy' is portrayed below.



*Source, Delphi Group 2005*

The '**Delta of Sustainable Energy**' captures the essence of the sustainability energy change process. It underlines the importance of actions that reinforce each other. The evidence is categorical: business decisions (consider the amount of capital invested in solar energy) or government policy (examine the amount of fiscal incentives provided for renewable energy technologies) that aren't linked and responsive to buyer behavior wastes resources and/or represents lost opportunity.

The good news is that the '**Delta of Sustainable Energy**' does appear more by happenstance, to be emerging in some areas such as wind energy and energy efficiency in Canada (*look for future SEE Insights to delve into these subjects in more detail*).

The '**Delta of Sustainable Energy**' is a power play for change which can accelerate economies and companies towards a sustainable energy future. There is a compelling business case for taking a proactive approach utilizing the '**Delta of Sustainable Energy**' as a framework to guide investment, technology development and deployment and public policy.

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*SEE Insight is complementary, available for download from [www.lumosenergy.com](http://www.lumosenergy.com) and sent monthly to an influential group of clean energy, business, environment and public policy leaders. SEE Insight serves to invigorate Canada's sustainable energy dialogue.*

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