


Principles of Ecology and Management:

International Challenges for Future Practitioners

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Design and setting by P.K. McBride

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Clean Energy and New Ventures

Contents

Clean energy

- Generation and transmission
- Solar and wind – the main renewables

Launching new ventures

- Funding
- International outlook at year-end 2010

Learning objectives

After reading this chapter, you will be able to:

- Weigh the factors driving renewable energy versus the obstacles that the sector faces
- Adopt the perspective of potential investors considering green ventures
- Determine the outlook for green ventures in a global economic context

■ Introduction

? Should energy be companies' green priority?

Previous chapters have discussed the many different ways in which the ecological imperative affects business operations. Since organisations' limited capacities force them to prioritise their workload, the question then becomes how companies should rank the different environmental challenges they face. As argued throughout this book, with managers generally operating under severe financial constraints, it is issues with a direct bearing on the bottom line that are most likely to receive immediate attention. In the field of Ecology and Management, this often means the supply and price of energy prices. The depletion scenario detailed in Chapter 2 forecast that energy costs will skyrocket in the near future as global supplies wane and demand accelerates. Add to this the costs that companies will bear as cap-and-trade carbon emission reduction schemes are implemented and it is no surprise that the fortunes of new clean energy ventures dominate the green business headlines.

As often as not, the many millions of new 'green jobs' that most analysts are predicting do not actually refer to clean energy but to clean technology, involving the greening of existing industrial or service sector activities. Examples range from green construction (see Chapter 9) to energy consumption reduction devices, recycling measures and even process re-engineering – the latter being a market that has drawn particular attention in recent years from longstanding management consultancies such as KPMG and Accenture as well as new specialist advisors such as Carbon International. The present chapter, on the other hand, focuses specifically on the generation and distribution of renewable clean energy. This new sector currently generates an estimated \$600 billion in revenues and employs 1.7 million people worldwide – or 2.3 million, including component manufacturers producing items such as photovoltaic cells for solar panels (TUC 2009). What is exciting for business students is the likelihood that these numbers will explode in coming years as the energy crunch hits global business. Joining a sector just before it takes off is a fantastic opportunity – as exemplified by the fortunes of those who were lucky enough to start a career in computers during the 1980s.

Key issue

Joining a sector just before it takes off is a fantastic opportunity – as exemplified by the fortunes of those who were lucky enough to start a career in computers during the 1980s.

Within the clean energy sector itself, a distinction should be made between efforts by new ventures and by older companies. Boeing, for instance, is a world leader in concentrated photovoltaic solar power technology; ABB has contracts to deliver photovoltaic solar plants; and Johnson Controls makes batteries for electric and hybrid vehicles. Not only does this influence total job creation in an economy – with older companies’ green initiatives often involving a simple reallocation of workers previously employed in other functions – but it is also relevant to the issue of new ventures’ longevity (see Figure 10.1). It might also be argued that larger firms have deeper pockets, which puts them in a better position to survive the cash shortages endemic to most infant industries’ introduction phases. Start-ups, on the other hand, rely solely on entrepreneurs’ resources or capital sourced from external providers such as venture capitalists. This argument can be turned around, however, since big companies’ larger capital requirements forces them to seek funding from the financial markets, whose short-term focus generally means that new activities will have less time to justify themselves. Indeed, large energy companies may like trumpeting their devotion to clean energy but their new capital investments in this sector have been somewhat disappointing, given the resources at their disposal (Mouawad 2009). Large companies also tend to pursue more institutionalised paradigms. They also face significant ‘sunk costs’, meaning that managers may be more reluctant to try something new (Croston 2008). This is not to say that big established firms do not have a major role to play in the new clean energy sector – but it does explain why much of the impetus comes from start-ups.

? What is the relative role of big vs. small companies in green entrepreneurship?

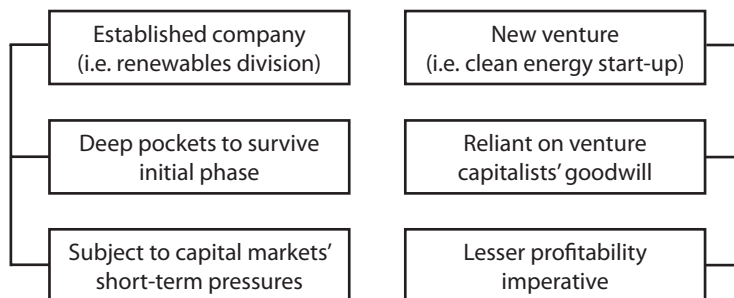


Figure 10.1: Funding pressures associated with different corporate profiles

Chapter extract

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