Abstract

This paper presents six dilemmas in the energy sector that are particularly critical in developing strategies for Governments, energy utilities and regulators. Dilemmas are defined by Hampden-Turner (1990) as twin perils or horns which you steer between. Unlike 'problems' which need to be 'solved', it is argued that dilemmas are interdependent and hence need to be reconciled by working on the two horns simultaneously instead of making choices on one of the two horns and thereby committing organizations to irreversible corporate directions.

The major energy sector dilemmas considered are: price driven strategy vs service driven strategy; competition vs co-operation; market mechanisms vs regulations; supply management vs demand management; energy efficiency through price signals vs energy efficiency through rebates; economic development focus vs environmental focus.

Based on recent work by Hampden-Turner on reconciling corporate dilemmas, the authors discuss how current polarised views on energy issues develops vicious circles within organizations. It is suggested to reconcile these seemingly difficult issues requires organizational transformation built around virtuous circles and that the challenge for Governments, utilities and regulators is one of leadership at all levels.
CHARTING DILEMMAS AND STEERING STRATEGICALLY: FROM VICIOUS TO VIRTUOUS CIRCLES OF ENERGY STRATEGY

1. Introduction

The electricity sector worldwide is increasingly in a state of flux. Several countries are pursuing micro-economic reform agendas with a focus on economic efficiency. In the UK, the 1980s ideology of Government was that privatising the industry would reduce costs and improve allocative efficiency. Not all has gone exactly to plan.

In the southern hemisphere, Australia is developing its own agenda for the electricity sector. Significant effort is going into establishing a competitive national (essentially in the South-East of Australia) electricity market. These reform measures, it is argued, would bring considerable benefits to the community through lower real prices.

In the US, the new Energy Policy Act of October 1992 seeks to open up current franchise territories to competition. Since the early 1990s, the European Community has embarked on its goal of a free market for electricity, with Norway (and UK as referred above) already well down this path of competitive electricity markets. Closer to home, New Zealand has had its own electricity sector reforms underway over the last few years with the same objective of establishing a competitive market for electricity.

A common thread that runs through all the above reform processes is the belief that a downward pressure on prices plus upward pressure on productivity in a competitive electricity (commodity?) market would be in the best interest of these communities. These reforms are expected to contribute towards economic efficiency in general and the competitive advantage of their manufacturing industries.

In parallel with these developments, concern for the environment has increased and several of the above countries have signalled their commitment to reduce greenhouse gas emissions and environmental pollution in general. For instance, the Council of Australian Governments endorsed a National Greenhouse Response Strategy in December 1992 with measures outlined to stabilize greenhouse gas emissions at 1988 levels by the year 2000 and reducing them by 20 percent of their 1988 levels by the year 2005. Other countries, including the US, are also pursuing similar greenhouse emission reduction strategies as part of the UN Framework Convention on Climate Change.

The above two policy issues - competitive electricity markets and greenhouse emission reduction strategies - will dominate public debate on energy policy in the 1990s. Those advocating the efficient, non-wasteful use of energy contend that Energy Efficiency, or more broadly Demand Management (DM) measures, would suffer under a market driven electricity sector in the absence of relevant regulatory mechanisms. This would occur because energy supplied at low prices would, other things being equal, be 'consumed' in greater quantity and thereby impose an external environmental cost. On the other hand, those with faith in market mechanisms believe that 'If the price is right, energy efficiency and environmental efficiency will somehow follow automatically'.
The public policy challenge therefore is 'How do we steer strategically given these complex issues for Governments, energy utilities and regulatory agencies?'

2. **From Dilemmas to Strategy**

In this section, we present a brief overview of the methodology of "charting dilemmas and steering strategically" based on the work of Hampden-Turner (1990, 1992). This approach offers a considered framework for strategically steering organizations through complex policy dilemmas. Given the complexity and counter pressures facing energy policy, it is well worth exploring the framework in this context.

In very simple terms, the strategy process outlined by Hampden-Turner assumes the existence of dilemmas, or apparent opposing issues which decision makers need to steer between. He calls dilemmas as 'twin perils' and likens them to the 'horns' of a bull, warning that one cannot afford ignore either horn!

Consider, in contrast, the generic strategies popularised by Porter (1980) wherein it was suggested that firms must either be a low-cost producer or create a premium differentiated product. The danger of seeking to achieve both, Porter said, was risk of confusion and conflict within organizations and that inevitably, compromises are made and the organization is 'stuck in the middle'.

Hampden-Turner (1990) comments that while Porter is entirely correct about the risk, he was also deficient in not seeing the potential for reconciliation; that is of creating a premium product at lower cost.

To achieve strategic reconciliation, Hampden-Turner suggests that the 'horns' of a dilemma can be used like the cross-coordinates on a chart, allowing an organization to navigate and to plot its progress. He suggests that rather than make either/or choices, organizations must learn to reconcile opposites by navigating between the two horns of a dilemma – eg. simultaneously steering towards 'higher quality and lower cost', while avoiding 'both the rock of relentless cost cutting and the whirlpool of ineffable and fathomless quality' (1990, p.25).

To understand Hampden-Turner, it is necessary to 'agree that reconciliation' in this sense does not imply an unsatisfactory compromise but one of realising synergistic outcomes in managing opposing and interdependent issues.

The Hampden-Turner approach to reconciliation is as follows:

- Eliciting responses, perhaps with humour, to enable dilemmas to surface;

and then
Mapping or charting the dilemmas on two adjacent dimensions to indicate polarities;

so as to

Process dilemmas to bring out all the relevant dimensions;

and then

Framing the dilemmas within a context in which opposites can be reconciled;

with a view to

Timing the reconciliation of dilemmas by both analysing sequentially and synthesizing simultaneously;

by

Casting dilemmas into wave forms, whereby dynamic and emergent strategies rather than competitive and static strategies take shape;

which leads to

Synergizing dilemmas by combining all elements so that they work together and are duly reconciled without a zero-sum trade-off.

Hampden-Turner’s process combines Western style confrontation of opposing forces with Eastern style harmony between such forces. By using his approach, the horns of a dilemma are not treated as ‘problems’ to be ‘solved’. Instead, the focus is on building learning organizations and developing capabilities: thereby changing corporate culture to enable it to reconcile issues that are interdependent but not necessarily in conflict. After all, even Porter’s fateful choice between low-cost and premium differentiation relates to two features which are both desirable.

But organizations seldom have a single pair of horns to steer by. Invariably they have several major dilemmas, sometimes as many as eight or ten depending on the nature of the industry. According to Hampden-Turner, the challenge therefore is to steer strategically by continuously reconciling all pairs of corporate dilemmas.

Depending on how the corporate helm is steered, he warns that organizations can either get trapped in their own whirlpool, a vicious circle, or steer strategically and develop a virtuous circle through organizational learning. Hampden-Turner suggests that vicious and virtuous circles can be distinguished by whether the dilemmas or tensions are unreconciled and fiercely adversarial, or reconciled and synergised.
3. **The Dilemmas of Energy Policy**

Over the course of the last few years, we have had interviews and discussions in the US, UK, New Zealand and Australia with Government policy analysts, regulators, utility executives, appliance industry and leaders in the environmental movement. It has become apparent that everyone of us, to a greater or lesser extent, is struggling with a range of issues that are complexly intertwined.

From our observations, the major dilemmas in energy policy are as follows:

- **Price Driven vs Service Driven**

  Is it more important to focus on policies to achieve low energy prices or should policy efforts be directed at value added customer services without giving priority to energy price impacts?

- **Competition vs Co-operation**

  Should competition in all segments of the market underpin policy or should co-operation at all levels be the cornerstone on which the electricity sector develops?

- **Market Mechanisms vs Regulations**

  Would energy policy be more effective with total reliance on market mechanisms or should regulation assist to overcome even the slightest market imperfection?

- **Supply Management vs Demand Management**

  Would the community, shareholders and stakeholders be better off building additional supply side resources (e.g. new power plants) or should emphasis be focussed first on the demand-side (e.g. energy efficient appliances) to exploit all cost-effective options?

- **Energy Efficiency through Price Signals vs Energy Efficiency through Rebates**

  Should price signals be used to achieve more efficient energy use in the community or should rebates be the basis of achieving increased penetration of energy efficient appliances and techniques?

- **Economic Development Focus vs Environmental Focus**

  Would we be better off to focus on economic development as a basis for improving the environment or should concerns for the environment be the basis on which we achieve economic development?
Few of any of these issues can be addressed with a problem-solving focus. Yet life goes on and decisions have to be made everyday. The fundamental question is: Should we aim to make the least-bad 'choice', or should we agree with Hampden-Turner that all these things are desirable and therefore aim instead at reconciliation?

Of course, reconciliation is not easy; neither can it be total nor achieved instantaneously. Yet, the 'best' available strategy is, arguably, that which achieves the maximum degree of reconciliation through time. The advantage of this 'reconciliation strategy' is that no important issue ends up being ignored.

The above energy specific policy dilemmas cannot be seen in isolation of an organization's other dilemmas. Common to most organizations are dilemmas that include the following:

- Individual vs Team Work

Should we place greater emphasis in individual efforts or should team work be the focus of organizational development?

- Implementation vs Planning

Is it more important to allocate corporate resources to enable speedy response to specific issues for 'implementation' or should we put greater emphasis on achieving consistency of response and processes through 'planning' within the organization?

Clearly, the range of issues that individual organizations face in the energy sector are different— for instance the dilemmas faced by a power generation utility is quite different from that of a power distributor or a vertically integrated energy utility or a government policy agency. However, what is common to all these organizations facing the above range of dilemmas (or 'polarity issues' according to Johnson, 1992) is that:

- Each horn of the dilemma is interdependent and

- The dilemma is on-going and cannot be solved at one stroke, only reconciled.

4. **Charting Energy Policy Dilemmas**

In this section, we will chart some of the dilemmas in two dimensions to show the extent of polarisation or separation that might exist within organizations. For convenience, we will focus on three of the dilemmas— energy prices vs energy services, market mechanism vs regulation, and economic development focus vs environmental focus.
Advocates of energy price driven strategy within utilities and policy groups are often heard saying "There is only one thing that matters—PRICE!" while the advocates of demand management and energy efficiency measures often lament that such a strategy inhibits them from providing enhanced customerservices. Those anchored at this end of the dilemma hold a deep rooted belief which says "Compete on services—BILLS matter, not prices!"

Organizations steering with a price driven strategy would no doubt steam towards position 10/1 in the dual-axis diagram of Figure 1 while those pursuing the energy services focus would charge towards position 1/10. In either case, true reconciliation of opposite positions of a policy dilemma does not take place. Should on-going efforts centre on reconciling these opposites, then it is possible to steer towards the position 10/10 in the right hand top corner. Only such a 'reconciliation' is likely to result in both lower prices and more efficient use of energy.

It is not the purpose of this paper to pass value judgements as to where particular energy organizations or utilities are currently positioned with regard to the dual-axis shown in Figure 1. It is up to individual managers within these organizations to gauge their position as well as ascertain their performance in reconciling strategy differences (relative to their competition) on the dual-axis of a dilemma.

Figures 2 and 3 show the dual-axis positions for the other dilemmas referred above. In all the diagrams shown, the distance from the fully reconciled position of 10/10 would provide a clear indication as to how far the organization has to steer from either end of a particular dilemma if it intends to reconcile policy dilemmas.

As Hampden-Turner (1990, p.24) suggests, 'If you were too intent upon avoiding the rock you could be sucked into the whirlpool. If you skirted the whirlpool by too wide a margin you could strike the rock.' Clearly, in steering towards the 10/10 position, those at the helm would need to tack between the "hard rock" at one end and the "whirlpool" at the other. Leaders at the helm of organizations not only have to set their corporate sails, but also have the responsibility for the quality of their steering between these dilemmas.

Learning organizations are more likely to develop strategic processes and feedback mechanisms to reconcile dilemmas. An organization's performance on its dilemma score-card may well provide an indication of its abilities to stay ahead of its competitors. In the energy sector, differences in the performance are likely to increase with the growth of an open and competitive energy services market.
FIGURE 1: ENERGY PRICES vs ENERGY SERVICES

"Only one thing matters - PRICE!" (10/1)

Competitively priced energy services (10/10)

"Compete on services - BILLS matter, not prices!" (1/10)

Energy Price Focus

Energy Services Focus

FIGURE 2: MARKET FORCES vs REGULATIONS

Regulatory Red-Tape chokes free enterprise (10/1)

Competition complemented by market guiding regulations (10/10)

Commercial utilities shaft consumers (1/10)

Market Mechanisms

Regulations
The Vicious Circle of Energy Strategy

We may well ask, How might this vicious circle of energy strategy look?

Let us first attempt to portray a 'hypothetical' energy utility facing a few of the above range of dilemmas.

For our discussion here, let us assume that this hypothetical utility has a corporate culture where emphasis is on 'problem solving' or 'solving' one horn of a dilemma. Such attempts at solving might have origins in either a blind faith in discipline paradigms (eg. economic rationalism, strong supply side focus etc.) or in sheer inability as an organization to grapple with the complexity of the interdependent issues.

Further, our hypothetical utility might be one where individuals are torn in their allegiance towards one horn of the dilemma (eg. price driven strategy) while its stated policy is anchored on the other horn (service driven strategy). Individual inability to reconcile horns of the dilemma (say, economic vs enviromental focus) over time translates to corporate disabilities in the longer term leading to further decline in individual and organizational performance. Other biases might include leaning heavily towards regulatory processes in preference to market mechanisms or vice-versa.
Let us further assume that this utility encourages performance rewards for individuals while only paying lip service to team based outputs. Individuals would thus work on singular unidirectional 'projects' which are decoupled from the rest of their colleagues and synergistic outcomes would be uncommon. In many such organizations, there is a notion that a binding glue that fosters teamwork exists. But often, the semblance of teamwork may only be exhibited in one-off exercises!

To compound issues, mismatch between personal and organizational values and a mission statement without a sense of mission may all add to the whirlpool of negative and vicious culture. Further, corporate direction that is hell bent on making choices rather than reconciling dilemmas could leave this utility literally stuck on one horn!

On the basis that our hypothetical utility focuses on one horn of each of the three dilemmas referred in the previous section—energy price driven vs energy services driven, market mechanisms vs regulations, and economic development focus vs environmental focus— at least two vicious circles can be constructed. Any number of combinations would be possible, but for our purposes here, Figures 4a and 4b represent visually the outcome of making choices on either horn of the three dilemmas.

While one hopes that such extremes of vicious circles do not exist in the real world, our purpose here is to demonstrate the power of the process outlined by Hampden-Turner with a view to gaining insights into the unintended consequences of such an energy strategy.

6. Towards a Virtuous Circle of Energy Strategy

Having established two vicious circles of energy strategy, we may well ask:

'Are there energy utilities that have a virtuous circle of energy strategy?'

One hopes that there are energy utilities that are well on this track of developing virtuous circles of strategy.

For the purposes of this paper, let us outline, again for a hypothetical organization, a virtuous circle of energy strategy wherein the three dilemmas referred above are being reconciled. Figure 5 shows the virtuous circle for our hypothetical organization.

The energy strategy here is supported by three spokes, namely:

- **Competitively Priced Services** spur productivity resulting in cost efficiency;

- **Market Guiding Regulations** promote less waste of energy through more efficient appliances and technologies; and

- **Ecologically Sustainable Development** encourages twin focus on both environmental and economic development.
FIGURES 4a AND 4b: VICIOUS CIRCLES OF ENERGY STRATEGY

1. Focusing on economic development

2. Regulatory controls dismantled

3. Value added energy services neglected

4. Impacts on the environment are overlooked

1. Driven by an environmental focus

2. And a steady decline in market mechanisms

3. Energy price increases from new externality costs

4. Major opportunities for energy resource extraction development are overlooked
As a result, we have an organization whose strategy is as follows:

Driven by Ecologically Sustainable Development (ESD) principles, value added customer energy services supported by relevant regulations enables economic development with "right" cost pricing of energy services in a competitive energy services market at all levels.

Referring back to Figures 1 to 3, this organization would be steering towards the 10/10 position while avoiding the pitfalls of a strategy that is committed to the singular pursuit of one horn of a dilemma. It's on-going focus would be on reconciling the two horns of each dilemma as it steers towards the reconciliation position of 10/10.

In developing this strategy, our hypothetical utility would be reconciling the three dilemmas by creating a complete picture of the interdependence between horns of a dilemma and the interdependence between dilemmas.

Such an organization is unlikely to fight regulation in principle but rather encourage regulation to break down barriers to energy efficiency and customer services, at least until such time as market forces can gather momentum.

It is conceivable that this utility has a strong sense of mission and that organizational learning takes place all the time by building on individual learning and personal development. A large of numbers of managers in this organization would be strategists, operating at the sixth stage in Torbert's (1987) seven-stage developmental model with individuals who delight in managing paradoxes (Quinn, 1988).
7. **Concluding Remarks**

The key to tackling dilemmas is to recognize first, that interdependent issues cannot be solved but only reconciled. Any attempt at treating issues as individual problems to be solved only exacerbates the development of vicious circles. At the level of the individual, it could lead to lower morale. At the organizational level, it could ultimately result in the demise of an organization. Failure to picture the connectedness between dilemmas has its consequences; at times fatal.

Dealing with dilemmas are major strategy matters for organizations. Superficial understanding will get them nowhere. The challenge for governments, energy utilities and regulators is to develop their own versions of virtuous circles of energy strategy. A high order of leadership is required for this strategy process to be developed. The development of a 'learning loop' of a virtuous circle can accelerate this process.

Timing is a large part of strategy-- it is the key to the reconciliation of differing value emphasis within organizations. In a competitive energy services market, those utilities that begin work on reconciling strategy dilemmas are bound to have a head–start over their competitors.

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**References**


