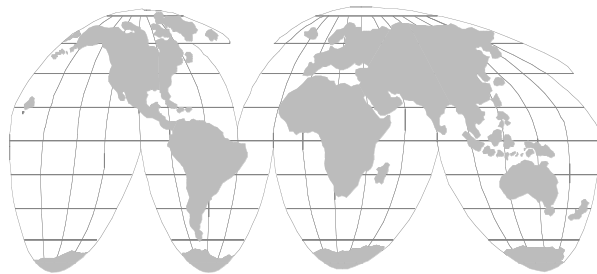


# FORESIGHT INTO INSIGHT

*How Texaco's Strategic Management Group  
Utilized the Scenario Process to Enable the  
Company Make Better Strategic Decisions*



STRATEGIC MANAGEMENT GROUP  
Corporate Planning and Economics

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*White Plains, NY  
October 2001*

## Summary

*This case study describes how Texaco's Strategic Management Group (SMG) used the scenario process to analyze the external business environment and identify the challenges, options and strategic alternatives facing Texaco into the future. The analysis helped to create the strategic context for subsequent investment and policy decisions by the company.*

*The case study details activities led by SMG that occurred over approximately a 4-year period, commencing shortly after SMG was formed in early 1997. It explains the many steps that were taken to develop the scenarios at Texaco, as well as its conclusions and results.*

*As a record of SMG's contributions, the case study is intended as a lesson for strategic planners in how to engage with executives and business units, foster strategic conversation, and overall align the organization to respond to emerging challenges.*

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# “Foresight Into Insight”

## ***Texaco Inc.***

### **BACKGROUND**

Texaco is a global energy company with operations in more than 150 countries. It earned \$2.5 billion on revenues of \$51.1 billion in year 2000. Founded in 1902, Texaco and its affiliates today explore for, find and produce oil and natural gas; manufacture and market high quality fuels and lubricant products; operate trading, transportation and distribution facilities; and produce alternate forms of energy for power, manufacturing and chemicals. (At the time of writing, Texaco was awaiting shareholder approval of its proposed merger with Chevron.)

In early 1997, Texaco’s then newly-elected Chairman and CEO, Peter Bijur, asked its Strategic Management Group to identify the challenges and opportunities that would likely confront the company and its businesses over the next 10-15 years. Mr. Bijur wanted to understand the context for the strategic alternatives and decision options he would face during his tenure.

Oil was then trading at around \$20 a barrel, and OPEC was mulling increases in its production ceiling. The U.N. had just agreed to permit Iraqi oil-for-food sales. Signs of the Asian financial crisis were still below the horizon. In the run-up to Kyoto, the U.S. had signaled its commitment to legally binding emission reductions. The Caspian promised to rival the North Sea as a source of oil. And hypermarkets in Europe continued to make inroads into retail gasoline sales.

Texaco had recently reorganized itself along functional rather than geographic lines. It had also announced capital expenditures of \$22 billion over the next five years. Mr. Bijur felt it critical to test the company’s business plans, budgets and assumptions against future uncertainties.

Texaco’s planning function had also been reorganized under Bijur to make it more strategic and less tactical. The revamped Corporate Planning & Economics Department revolved around three groups: the *Planning Group*, responsible for consolidating business unit budgets and corporate plans; the *Global Assessment & Economics Group*, responsible for forecasting near-term price movements; and the *Strategic Management Group*, responsible for long-term strategic analysis.

### **THE STRATEGIC MANAGEMENT GROUP**

The Strategic Management Group (SMG), under the leadership of Drew Overpeck, had embarked on a mission of “enabling Texaco to make better strategic decisions than the competition.” SMG believed that portfolio and business unit decisions should flow from robust corporate strategy that reflected insights into the rapidly changing external business environment. It sought to accomplish this by fostering a culture of strategic conversation and organizational learning.

In response to Bijur’s question, SMG decided to launch a corporate scenarios project in collaboration with Global Business Network (GBN). Overpeck, a graduate of one of GBN’s earliest training programs, was a strong proponent of the scenario planning process, having applied it with some success to Texaco’s natural gas business. Overpeck and Ron Robinson, Texaco’s then Chief Technologist, had also recently participated in a GBN-organized “Learning Journey” which exposed them to emerging trends in fuel and transportation technology.

The intent with the corporate project was to develop multiple scenarios for the future of the petroleum industry and the business environment within which Texaco would likely operate. The idea was to have dynamic, rather than deterministic, views of how the future might unfold.

### **ENVISIONING THE FUTURE**

#### **Preparation**

In preparation, Drew Overpeck, together with Peter Schwartz and Paul Mlotok of GBN, met with Jim Metzger, Texaco Vice President for Corporate Planning & Economics, to scope out the project and agree on the approach, time-table and deliverables. These were later shared with and approved by senior management at Texaco.

The plan was to follow a classic strategic management approach. It was to involve a period of “presearch” during which the team would conduct a preliminary study of driving forces and strategic issues, based on its own expertise and knowledge. The “presearch” was also to include in-depth interviews with senior executives to capture their concerns and views of the future.

The next phase was to develop and refine the scenarios. This was planned around an initial workshop involving the participation of internal thought leaders, input from external and internal experts, and facilitation by SMG and GBN professionals.

The scenarios were subsequently to be enhanced by additional research that would delve into issues raised in the initial workshop. A second, and possibly third, workshop was planned to review the enhanced scenarios, distill implications, and consider strategic alternatives and responses.

The overall project was to be completed by March of 1998, with the delivery of a summary document and a presentation to executive management. Beyond that, the plan was to communicate with a wider audience, engaging leaders across the company in a strategic conversation.

## **Executive Interviews**

The project kicked off with a quest to understand the perspectives of senior management at Texaco. Accordingly, Kees van der Heijden of GBN interviewed the CEO and other members of the senior leadership team, the heads of corporate functions and business units, and others with a strategic perspective. The interviews did not involve a set questionnaire; rather, they followed an open-ended format with the interviewee mostly setting the agenda.

The conversations revolved around issues relating to the future of the industry and Texaco’s place in it. The executives discussed the challenges they each saw in the external business environment, their concerns for what those might mean for Texaco, and their interest in areas to be addressed. The comments were later clustered by theme and subject, and covered the gamut of corporate, portfolio, organization, culture, technology, and business unit issues.

The results of the interviews were summarized and compiled into a document. The findings were discussed with CEO Peter Bijur, and the document was later used as pre-reading material for participants at the first workshop. The team was asked not to involve senior management any further in strategy discussions until after the scenarios and their implications had been developed.

## Developing the Views

### The First Workshop

The first scenario workshop was held in early October 1997. A core SMG team comprising Drew Overpeck, Geoff Styles and Helen Clark worked with GBN representatives to create an agenda and identify workshop participants. Their objective was to bring together a group of thoughtful individuals from across Texaco to explore emerging and future industry challenges. The end goal was to develop a long-term corporate perspective and strategic alternatives for Texaco.

The criteria for selection of workshop participants included demonstrated thought-leadership and business experience, as well as functional and geographic diversity. Approximately 25 leaders from throughout the company were invited to attend. To avoid distractions, the workshop was held at an off-site conference facility near Texaco's offices in White Plains, NY.

Workshop participants were provided with a summary of the executive interviews previously conducted as pre-reading material. They were also given a select few *Harvard Business Review* articles and case studies on strategy development.

Drew Overpeck and Peter Schwartz set the stage at the inaugural dinner with a discussion of the scenario and strategy development process. They urged participants not to be frustrated with the pace or direction of proceedings, and stressed the need to trust in a process that was designed to deliver a valuable outcome. They also spoke of how the process itself would alternately "widen" and "narrow," ensuring that deliberations were both expansive and focused.

### Setting the Stage

The workshop kicked off in earnest with a discussion of findings from the executive interviews, which provided some insight into senior management perceptions of industry challenges and opportunities. It also enabled an understanding of Texaco's business models as applied to various elements of the value chain. The analysis revealed gaps and blind spots in perception and approach, and helped identify areas that required further understanding and attention.

The discussion of the interviews was followed by an analysis of the prior year's annual report by Kees van der Heijden. Based entirely on language in the report (especially the CEO's letter to shareholders), the analysis sought to ascertain Texaco's overall "business idea" and "formula for success." It pointed to the company's strengths, business focus, and official view of the future.

Two invited speakers next provided valuable external perspective. Irving Mintzer, a vocal participant in the public policy debate on global climate change, addressed the group on key environmental issues and their implications for the future of energy. Daniel Sperling of the Institute of Transportation Studies at the University of California, Davis, spoke on alternative technology vehicles and their implications for future energy demand and infrastructure.

In addition to these outside speakers, workshop participants heard from Ron Robinson on alternative fuels, their markets and rates of acceptance. They also heard from Drew Overpeck and Paul Mlotok on industry structure, and from Bill McLeod on the refinery of the future. The presentations served to enrich the subsequent discussions, a key objective of the organizers.

### Focal Question & Brainstorm

The pre-read material and presentations set the stage for the scenario process that followed. Participants initially revisited the simple question posed by CEO Peter Bijur: "What is out there, and what do I need to be concerned about?" Following a spirited discussion, this was revised to read: "What are the long-term *structural* options for Texaco's participation and *leadership* in the *energy* industry?" The consensus was that this question provided the appropriate reference framework within which to discuss the future of Texaco.

The brainstorm session that followed involved a discussion of the key driving forces and critical uncertainties that were likely to impact the energy industry and Texaco over the course of the next 10-15 years. Participants offered up a wide range of thoughts, including likely changes in demographics,

technology, geopolitics, public policy, environmentalism, social values, markets, business models, and industry structure, to name a few.

The standard rules of a brainstorm session applied: no criticism or rejection of any idea, and all were encouraged to contribute. Each thought was captured on a flip chart and a hexagon. The facilitators frequently referenced the S-T-E-E-P (Social, Technological, Environmental, Economic, and Political) factors to ensure that the widest range of external forces were considered.

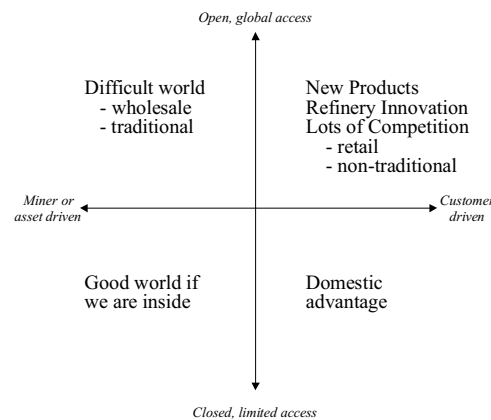
## Initial Scenarios

Participants later clustered the driving forces by common theme. The distinct clusters that emerged represented plausible scenario story threads with implications for the future of the industry. Among these were heightened environmentalism (“a green world”), changes in the social value system (“back to the farm”), American isolationism (“the ugly American”), political instability (the rise of “terrorism”), economic growth (“growing trade” ties), plunging oil prices (the “advent of \$7 oil”), and changing market channels and customer relationships.

A few of these story threads triggered dissent from a few participants. American isolationism in particular, with its storyline of a shift in the epicenter of global leadership, was viewed as implausible. This may have been a reflection of the predominance of Americans in the group.

Following the clustering exercise, participants voted on which they considered to be the most critical and uncertain driving forces for the industry in future. A consensus emerged around two drivers: the nature of **business models** (whether customer driven, or mining-asset driven); and the nature of **markets** (whether global and open, or closed and restrictive). The quadrants resulting from the matrix below suggested four distinct worlds. The growth of environmental values was viewed as inevitable and applicable across the board.

### INITIAL SCENARIO CONSTRUCT



Predetermined: Green or greener across all worlds

## Deductive vs. Inductive Approach

Workshop participants were dissatisfied, however, with the seeming rigid nature of the matrix and the distinct scenarios it suggested. The world is more fluid, they pointed out, with drivers that interact with one another and have an influence in more than one quadrant. Further, the scenarios that the matrix suggested clearly did not reflect the story threads developed earlier.

As participants puzzled over how to proceed, the GBN facilitators conferred and proposed that the *deductive* matrix be abandoned in favor of a more *inductive* approach. They suggested that the group use the clusters of the driving forces identified earlier as building blocks to develop stories about how the future might unfold.

## Creating Consensus

Three distinct views emerged, which painted a more fluid and dynamic picture of the future business environment for Texaco.

There was consensus around **one** set of drivers, that was seen as reshaping relations between energy companies and host countries in the future. "Access to resources" (read oil and gas reserves) would likely be impacted by the policies of host governments, and state oil company ambitions for an expanded role. Also critical would be U.S. Government foreign policy, given its propensity for unilateral action that often ends up putting U.S. companies at a disadvantage.

There was consensus around a **second** set of drivers involving changing relationships among customers, vendors, and product or service providers. New competitors, new brands, and new distribution channels were threatening the market share of incumbent players. These "invaders" could relegate energy companies to the low-margin commodity or asset end of the business, preventing them from enjoying their traditional rents from various elements of the value chain.

Finally, there was consensus around a **third** set of converging drivers. Environmental pressures, societal values and technological change were viewed as interacting to bring about changes in consumer demand. Concerns about greenhouse gas emissions and climate change, social expectations of corporate responsibility, and the development of new or alternative propulsion systems and energy carriers, were seen as likely to reshape the energy mix of the future.

A *fourth* set of drivers was rejected by near-unanimous vote. It revolved around domestic and global unrest, and anti-American sentiment stemming from a clash between the "haves" and the "have-nots." This was viewed as not being credible with a corporate audience. In hindsight, it pointed to the emerging issue of anti-globalization.

## Developing the Story Outlines

The three consensus views were deemed to adequately reflect the major forces likely to reshape the industry business environment over the next 10-15 years. The workshop now broke up into three groups, with each assigned to flesh out a scenario story around individual views. Story outlines were to reflect specific trends and their interactions as they might evolve over time.

Accordingly, the groups postulated developments such as what geopolitical or policy changes might occur, when new energy technologies might make major inroads, and how social values and business models might change. These were knit together into a story around each of the three views. The approach was predominantly *qualitative* and anecdotal, as this was seen as being better able to communicate the dynamic complexity of drivers and future uncertainties.

## Testing the Framework

The groups reconvened later to compare and contrast the scenarios and check the validity of each view. This enabled all to comment on the plausibility and internal consistency of each story-line, and ensure that they were reasonably robust.

The scenarios pointed to areas requiring further study and research. These included a need to better understand certain geopolitical dynamics, the mechanics and implications of the Kyoto Protocol process, the pace of alternate energy and vehicle technology developments, a profile of the customer-of-the-future, and barriers to the bundling of products and services.

The first workshop ended with a discussion of the action steps, work plan, and research agenda to be undertaken going forward. A second workshop was planned for later that year, to review the expanded scenarios and discuss implications for the industry and for Texaco.

## Identifying Research Needs

In the weeks following the first workshop, the SMG-GBN project team discussed and finalized a list of specific research topics required to flesh-out each of the scenarios even further.

For the scenario on "access to resources," the team identified the need for research into the motivations and likely evolution of state oil companies. It also identified the need for mini-scenarios on the future of Central Asia, Russia, the Persian Gulf, Asia-Pacific, and Latin America.

For the scenario on threats to control of margins and markets, the team felt it important to study evolving customer relationships by market segment. This was to include research into changing demographics (e.g. Gen X, Gen Y), and changes in the social fabric and lifestyles.

For the scenario on the convergence of environmental values and technology, it was determined that additional research was needed into the timing and nature of likely climate change policies, new vehicle and alternate energy developments, and new fuel manufacturing options.

Overall, it was seen as important to research the emerging structure of the industry in an effort to determine the nature of future competition. The team also believed that it should attempt to quantify some of these key drivers and their potential impacts, and turned to Texaco's Chief Economist, Tom Kerrigan, for assistance.

In addition to research on external drivers, the team identified key internal strategic issues that needed further investigation. These included the exploration of an environmental strategy in order to exploit new opportunities, research into the evolution of the company's relationships with host governments, and a carbon-content assessment of Texaco's reserves portfolio.

## Writing & Naming the Scenarios

While some of this research was already underway, much of it was assigned out and conducted in the weeks following the first workshop. A larger team involving Sartaz Ahmed of GBN (who had earlier recorded the meeting, and later joined Texaco) and other members of SMG worked concurrently to write-up the scenarios and incorporate the results of the research. The stories revolved around the drivers, their interactions, and potential dynamics over a 10-15 year period.

Workshop participants had earlier proposed tentative names for each of the three scenarios, seeking titles that were evocative of the scenario's central theme.

The scenario on "access to resources" was initially named *New Nationalism* to reflect the trend that host governments would seek to exert greater control over their national resources and thus look to restructure relationships with multinationals. Government pursuit of expanded control, at the same time, was not seen as leading to nationalization or outright expropriation.

The scenario on evolving customer relationships was initially named *Energy Solutions* to reflect the emerging trend that product and service providers would likely use information technology to target customers and deliver customized bundles of energy solutions.

Finally, the scenario on environmental values and technology was initially named *Cool Green Wheels* to reflect not only the trend toward cleaner and more efficient transportation and power generation technologies, but also the need for these products to appeal to consumers.

A first draft of the master scenario document was completed in November 1997. It comprised the expanded scenario stories, with special sections on key drivers and strategic issues. This was used as the discussion platform for the second workshop.

## Enriching the Views & Developing the Challenges

### The Second Workshop

The second scenario workshop was held at the same off-site resort location in early December 1997, with most of the original participants in attendance. The aims of the workshop were to validate and test the scenarios, to use the scenario framework to develop implications for the industry, and to focus on the implications these different worlds might have for Texaco.

Much of the first day was taken up with a review of the interim research. Participants heard presentations on the impact of the Asian Financial Crisis (then very recent), evolving industry structures, new customer-focused business models, the potential impact of new technology vehicles, the future and logic of state oil companies, and the timing of climate change issues.

They also explored several mini-scenarios including the geopolitics of the Caspian Region and pipeline alternatives, the future of the Asia-Pacific Region, and Latin America with an emphasis on Brazil.

Further, they were given a quick update on some scenarios then being developed for the future of the exploration and production sector of the oil industry.

Participants heard about new fuel manufacturing options including new refinery configurations that might include a chemical plant, as well as the likelihood of new manufacturing facilities in places like the Far East and South America motivated by a need for fuel security and reliability.

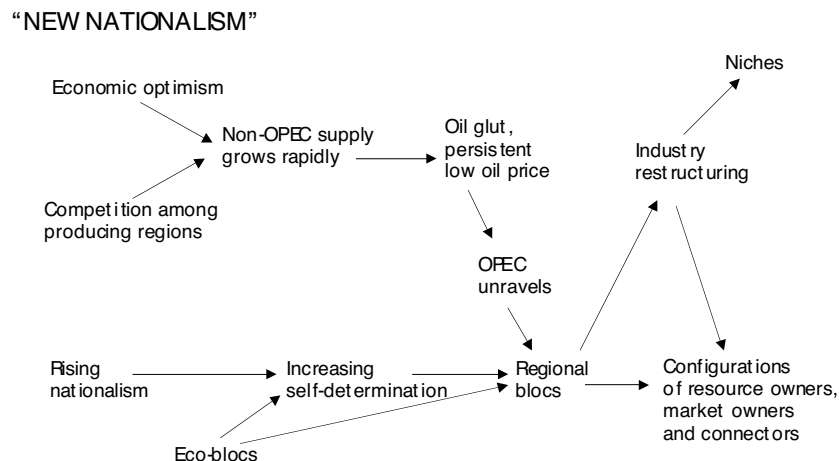
Finally, they reviewed a snapshot of global oil and gas reserves which profiled countries with open vs. closed access. The analysis indicated that much of the world’s known reserves existed where access was difficult or relatively closed to outsiders.

Following these presentations, workshop participants reviewed the draft scenario outlines – *New Nationalism*, *Energy Solutions*, and *Cool Green Wheels* – in some detail. The free-flowing discussions centered around whether the scenarios were valid and plausible, and novel enough to resonate with a wider audience. Participants suggested revisions which were incorporated.

## The Expanded Scenarios

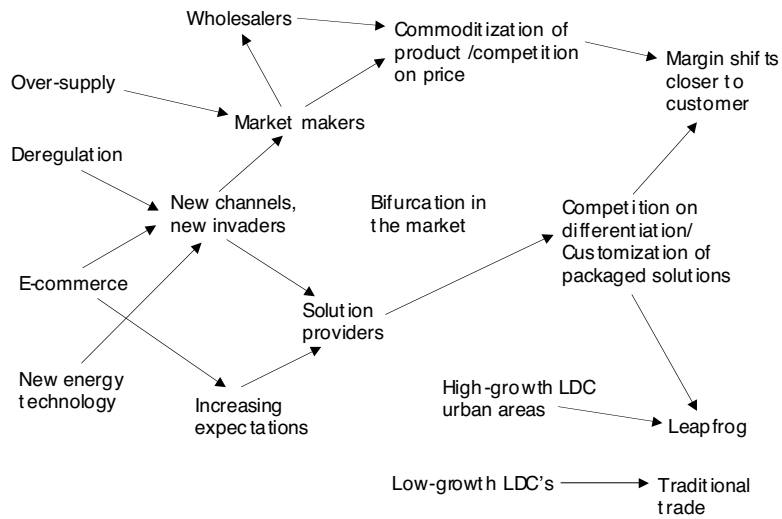
The three scenario stories sought to capture the dynamics of the drivers within each cluster.

The *New Nationalism* scenario, for example, described how the growth of non-OPEC oil supplies and the desire for regional self-determination could converge, leading to the unraveling of OPEC and the emergence of regional energy trade blocs. The industry restructuring that would inevitably follow, could lead to new configurations of resource owners and markets, with the oil majors being forced to play a different role. The dynamic is captured in the diagram below.



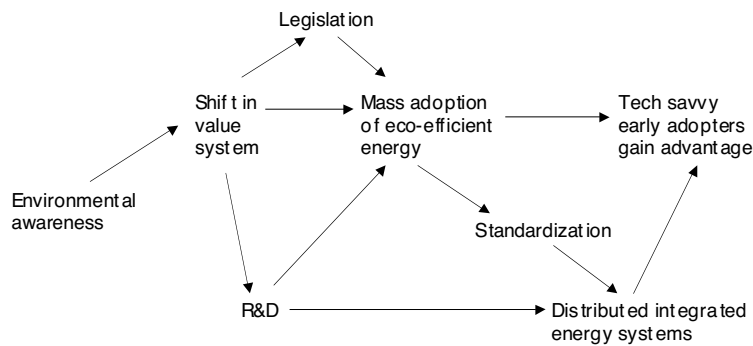
The *Energy Solutions* scenario (see diagram below) described how deregulation, e-commerce, and new energy technologies are disintegrating current business models. New market entrants and the “commoditization” of products are causing margins to migrate toward the customer end of the value chain. Capitalizing on this trend, mega-brands like *Microsoft*, *Starbucks*, and *Virgin* are moving to provide customized or “bundled” offerings. The cashless Mobil *Speedpass* payment system is indicative of a trend to “own the customer.”

“ENERGY SOLUTIONS”



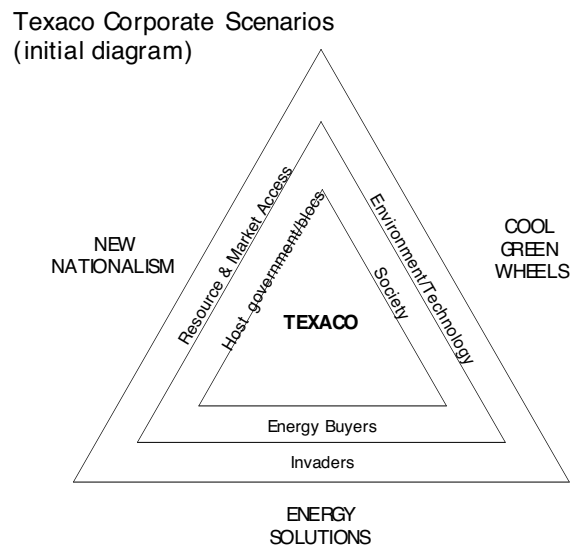
The *Cool Green Wheels* scenario described how heightened environmental awareness would likely lead to changing social values and public policy that demanded more efficient energy technologies (see diagram below). Under this scenario, early technology adopters would be advantaged.

“COOL GREEN WHEELS”



The scenario conversations were lively and intense. Participants interspersed comments on peer company initiatives, the evolution of markets, and technology, with thoughts on the prospects for regional economic turnaround, and other relevant developments and trends. The comments were captured and incorporated into the scenarios, ensuring participant ownership of the final product.

The scenarios were initially depicted as a series of concentric triangles (see diagram below) with each side representing the relevant business environment and industry drivers.



## Industry Implications

Following the discussion of the scenarios, participants spent the next day and a half of the workshop brainstorming the implications of each for the energy industry.

The *New Nationalism* scenario, for example, suggested that some state oil companies could evolve into international players in competition or alliance with the international majors. Host governments seeking to balance self-determination desires with the need for investment and technology, would likely restructure relationships with multinationals. Today's players would likely have to create new value propositions as "connectors" in order to compete and meet the higher expectations of host governments. Companies may be transformed from reserve equity holders into service providers, and be valued accordingly. Relationships would be crucial.

The *Energy Solutions* scenario suggested that as margins migrated toward the customer end of the value chain, intimate customer knowledge would likely become key. There could be a shift from products to offerings, as a few consumer brands became dominant and sought to bundle energy and other utility services for customers. Fuel providers could end up being relegated to the commodity (low margin) end of the business. Customer drivers would obviously differ in mature versus developing markets.

The *Cool Green Wheels* scenario suggested that as social values were reflected in public policy and the demand for cleaner fuels grew, energy companies should adjust their portfolios toward lower-carbon resources. Accordingly, companies should look to natural gas plays in the U.S. and overseas, as well as seek opportunities in alternate energy technologies. Companies would also benefit from a greener brand and active engagement with non-governmental organizations.

## Implications for Texaco

The discussion of industry implications helped deepen understanding of the broader strategic context of each scenario and pointed to implications for Texaco. Participants spent the rest of the time discussing areas of improvement, opportunities to leverage competitive strengths, and the need for expanded knowledge on specific subjects. They also brainstormed how Texaco could readjust its portfolio so as to include options that generate additional shareholder value.

Suggested long-term strategies included a repositioning of the Texaco brand, a rethinking of leadership and relationship skills, and a need to re-perceive the value chain and consider a role as a service provider or "connector." Participants also addressed the importance of monitoring and investing in new energy technology developments, and rethinking certain policy stances.

The second workshop ended with a listing of next steps, which included a need to quantify the scenarios, strengthen the business case, and conduct additional research.

## Assessing Potential Impact

In the weeks that followed the second workshop, the core SMG-GBN team met several times to review progress and refine the scenarios. To ensure business relevance, the team sought to quantify the potential economic impacts of each scenario in terms of changes in GDP growth rates, energy supply and demand, and oil prices. It also identified further research elements.

## Reference Case

As a reference, the team created a “business as usual” scenario that articulated Texaco’s official view of the future. Entitled *Continuing Global Integration*, the scenario described a future world of sustained economic growth with a steady expansion in the demand for oil and other fuels.

The scenario held that, despite technological change and increasing environmental regulation, oil would continue to dominate the transportation market. OPEC would remain a loose cartel, and oil prices, though volatile, would continue to be significantly above free-market levels.

The reference case essentially described a future world without radical shifts in technology, business models or geopolitics.

## Finalizing the Challenges

### The Third Workshop

A third one-day workshop involving fewer participants was held in mid-January 1998. The idea was to compare the scenarios in final form, enhance industry and Texaco implications, and recommend individual strategies and actions. The team was also intent on identifying the *common* implications that would suggest robust across-the-board strategies for Texaco.

Workshop participants suggested that Texaco consider three options for each scenario: *Watch & Wait*; *Watch & Prepare*, or *Lead the Charge*. Each option was linked to a recommended set of actions. Anticipating CEO interest in especially option three, participants spent some time debating what it would mean for Texaco to be a leader or prime mover.

Participants also recognized that while it was important to examine how Texaco should behave within each scenario, the rest of the world was not going to come to a standstill. Accordingly, they discussed the need for research into how competitors might act in a dynamic environment.

Finally, workshop participants brainstormed some “signposts” or early warning signals for each scenario. They pointed out that these would be important for Texaco’s strategic planners to monitor, in order to track whether one scenario or another (or a combination) was unfolding.

## Making it Relevant

In the weeks following the third workshop, the team wrestled with how best to communicate the scenarios and their implications to an executive audience that was sure to be interested in the insights and recommendations rather than the scenarios themselves. As they saw it, their challenge was how to capture the executives’ attention and make it relevant to business needs.

The key insight came in a meeting between the SMG core team and Peter Schwartz of GBN. Schwartz realized that although it would be difficult to engage executives with a detailed description of the three scenarios, each scenario posed an overarching *challenge* for Texaco’s businesses. Further, the challenges connected directly to CEO Peter Bijur’s original question.

Accordingly, the team decided to downplay the scenarios and focus instead on the corporate challenges facing Texaco, as well as its options and strategic alternatives. This shift in focus was responsible for much of the subsequent success of the project rollout.

## CHALLENGES FOR THE FUTURE

## “Shifts in Control”

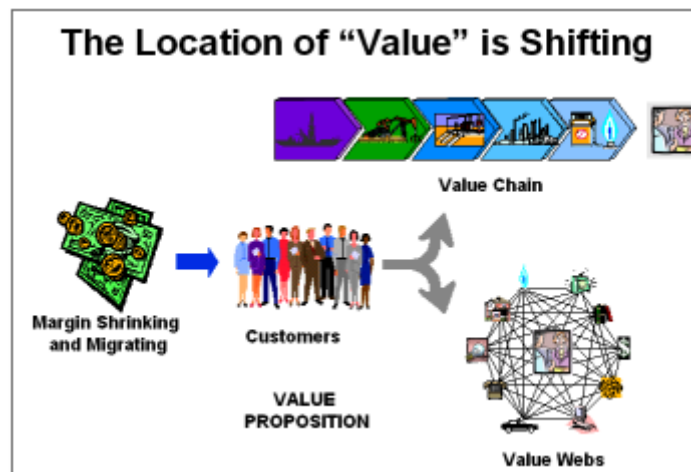
The final presentation was entitled *Shifts in Control: Confronting Our Strategic Challenges*. Its central theme reflected another key insight: that Texaco was in danger of losing control of its destiny as value and margins shifted from owning assets to owning relationships, from relying on contractual protections to leveraging deep-seated proprietary knowledge, and from an industrial age business model to one based in the information age.

At its outset, the presentation spelled out three key challenges to Texaco’s future success:

- That access to and ownership of exploration and producing opportunities may be constrained by the politics of the host countries and actions of the U.S. Government;
- That new intruders may get between Texaco and its customers, taking away its marketing margins, and leaving the traditional industry with the commodity part of the business; and
- That environmental pressures and technological change may converge with changing social values and lead to major shifts in the mix of fuels used to produce energy in all forms.

The clear message was that the relatively assured margins that Texaco had traditionally enjoyed were likely to erode over time as society, technology, geopolitics and business models changed. Notwithstanding a continuing emphasis on its core business, the company was going to have to adapt its business models and strategies to respond and stay in the game.

An example of this ongoing evolution was reflected in the diagram below. Customers expect and are being offered new value propositions, as value chains disintegrate and are replaced by value “webs.” As a result margins are shrinking and migrating toward the customer.



Margins could be further eroded by the threat from new “invaders” and disruptive technology which could eventually eclipse existing technologies. The challenge for Texaco is to be alert to such shifts and invest in the right opportunities.

## What’s in a Name

Seeking clarity, the team revisited the name of each scenario to ensure that it truly reflected its key challenge. Accordingly, the *New Nationalism* scenario was renamed **By Invitation Only** to reflect the likelihood that access to reserves would be at the discretion of host governments.

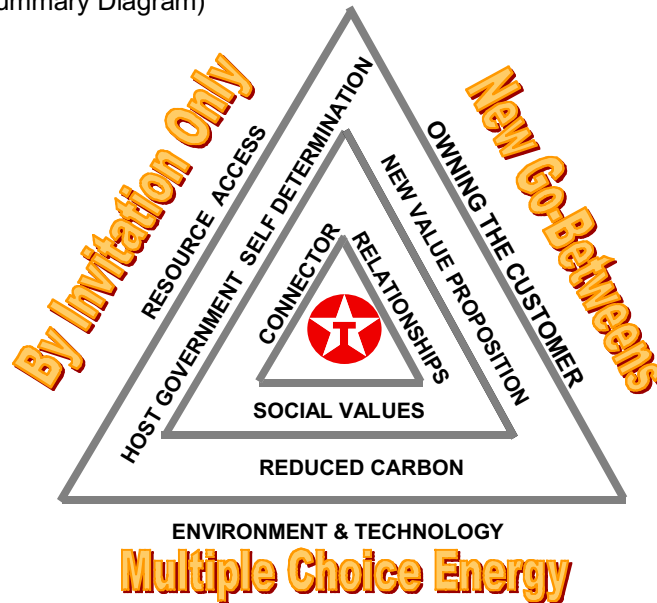
The scenario entitled *Energy Solutions* was renamed **The New Go-Betweens** to reflect a future where new market entrants or “invaders” might supplant existing players and seek to “own the customer” so as to capture margins that were migrating to the retail end of the value chain.

The third scenario on environmental values and technology, originally called *Cool Green Wheels*, was renamed ***Multiple Choice Energy*** to reflect the likelihood that a mosaic of technologies and fuels would emerge, requiring energy companies to meet a range of customer needs.

## Summary Graphic

The three scenarios and their respective challenges were depicted in a summary graphic (shown below) which was later used with various audiences. Each of the triangle's three sides reflects the central "shift in control" taking place, together with its drivers and key challenge.

**Texaco Corporate Scenarios**  
(Final Summary Diagram)



## Communicating the Message

Early on, the team realized that conveying its findings to a Texaco audience would require a multi-pronged communications plan that was focused yet flexible, and relevant to managers more attuned to shorter-term views. Accordingly, the team set about creating communications materials and devising a strategy, designed to resonate with target audiences.

The team spent time researching and quantifying the potential magnitude of the shifts taking place to ensure that the key messages were taken seriously. It also documented the "size of the prize" in terms of the value of potential opportunities for Texaco. However, as was discovered later, audiences were more interested in the qualitative trends than quantitative projections.

The presentation also incorporated specific recommendations on how Texaco could respond to these challenges. These included strategies to improve relationships with customers, host governments, and non-governmental organizations, as well as to explore new business models, and invest in emerging technologies.

The team procured several props for use during the presentation to drive home the main points even further. These included a Mobil *Speedpass*, a computer silicon-wafer motherboard, and several news articles. These were used to good effect as evidence of the changes taking place.

The team discussed the possibility of creating an interactive CD to enhance communication, but the idea was later abandoned. Instead, the scenarios and background material were compiled into a comprehensive master document. This was distilled into a 12-page executive summary document for wider distribution across the company.

Complementing the presentation and documents, the team created a set of workshop templates for business units to enable them to consider the unique implications of the scenarios for the future of their own business. The templates, which included a primer on the scenario process itself, were utilized by

various groups at Texaco including the Natural Gas Liquids, Global Gas & Power, and Global Information Systems.

Pursuing additional avenues of communication, the team partnered with the Human Resource department's *Organizational Effectiveness* (OE) group which works to improve standards of leadership at Texaco. The scenarios were integrated into OE's advanced leadership training materials, which helped to disseminate understanding of the corporate challenges among a wider internal audience.

## **Presentation to CEO**

The team met with Texaco CEO Peter Bijur on March 3, 1998 and briefed him on its findings, including the identified challenges, insights, and recommendations. Bijur was very receptive, and indicated that he understood and endorsed the implications and recommended actions.

Overall, Bijur was pleased that a larger group had been able to meet and think strategically about the future of the company and the challenges it faced. He urged the team to continue with its planned rollout to other executives and to continue to foster such strategic thinking throughout the company.

Bijur was particularly intrigued by the challenge of *The New Go-Betweens* and its apparent trend of bundling of products and services; he urged the team to explore the emerging opportunities. He was also excited about exploring ways to generate new ideas within Texaco, and vowed to champion the cause personally.

## **Spreading the Word**

### **Internal**

In a series of meetings that followed, the team shared its findings with other members of the senior leadership at Texaco. The team found that its audiences were more interested in the qualitative than the quantitative aspects, a surprise in the numbers-oriented Texaco culture.

The team also took the presentation on the road, speaking to key Texaco audiences including business unit planning groups, scientific and technical fellows, executive business analysts, and Public and Government Affairs professionals. In addition, the presentation was shared with a select few outsiders who helped to enhance its conclusions.

The presentations generated wide interest and a desire for action, at especially the middle management and business unit level. This was tempered, however, by the acknowledgement that in many instances Texaco's options were limited due to industry conditions or company structure. Nevertheless, the discussions created a common platform of understanding.

### **External**

The scenarios and their attendant challenges were reflected in the keynote address that Peter Bijur gave to the 17<sup>th</sup> Congress of the World Energy Council on September 14, 1999. The speech was lauded for its vision, and has since been cited repeatedly for its insights into the changes still taking place in the industry.

The publicity from the speech resulted in the scenario team being invited to speak to various external audiences. Most notable of these was an invitation to address strategic planners at Volvo's headquarters in Gothenburg, Sweden. The speech was also published by GBN as an example of how Texaco had used the scenario process to expand its strategic thinking.

## **REVALIDATING THE FUTURE**

### **“Shifts in Control” II**

In late 1999, concerned that the scenarios might be nearing the limit of their usefulness, SMG set out to revisit them, and if needed, create a new set of scenarios. In testing the validity of the original scenarios, though, the team concluded that they were still robust and relevant.

The team found evidence that the scenarios were, in fact, unfolding as described earlier; in many instances faster than foreseen. Given their impact on Texaco's businesses, it was even more important that they be factored into the company's plans.

The team did conclude, however, that *globalization* had emerged as a challenge that had not been clearly identified earlier. Building on globalization scenarios generated by GBN, the team conducted a workshop to examine the forces driving globalization, its tensions, alternative outcomes and long-term implications for Texaco.

Recognizing the opportunities in evolving customer expectations and new value propositions, the team also spent considerable time examining a "solutions provider" business model. This was discussed with senior management as part of the team's revised "point of view."

Management's response to the "solutions provider" business model was appreciative but lukewarm. In hindsight, management was likely preoccupied with considering the merger with Chevron, which was announced shortly after the team began its rollout for "Shifts in Control" II.

The team continued to explore ways to generate, capture, and nurture new ideas to fruition within Texaco. This stemmed from the firm belief, shared by Texaco's new CEO Glenn Tilton, that innovation and entrepreneurship could generate significant value for the company.

## IMPACT ON THE FUTURE

### Pursuing Additional Knowledge

The scenarios and challenges served as a launch pad for numerous SMG-led research initiatives. On the **geopolitical** front, SMG led in-depth investigations into the structure of the Russian oil industry and its companies, the international jockeying for power in the Caspian region, and the future of Russia itself as it struggled to emerge from the aftermath of the Asian financial crisis.

Seeking to understand the future of the Middle East, SMG developed scenarios for the region and key countries including Saudi Arabia, Kuwait, Iran and Iraq. The analysis enabled Texaco corporate policy makers to position the company for potential opportunities in the region.

SMG participated in Texaco's Pacific Rim Steering Team to develop scenarios for the future of that region. Further, SMG assisted a cross-functional China team with using scenarios to examine the risks involved. SMG also studied the implications of the Asian Financial Crisis.

SMG members worked with Texaco business units to facilitate a geopolitical understanding of the future of Venezuela and Brazil. Separately, SMG conducted an in-depth study of the size, scope, drivers and motivations of the world's major national oil companies (NOCs).

From a **technology** standpoint, SMG studied the de-carbonization of fuels and the emerging hydrogen economy. This included analyses of alternative technology vehicles, fuel cells, and distributed power generation, as well as the mosaic of potential fuels and related infrastructure.

Seeking to understand when a transition away from fossil fuels might occur, SMG also analyzed existing global energy resources, including reserves, supply, demand, and potential substitutes. This included a study of renewable energy options such as wind and solar power.

With respect to the **environment**, SMG used a scenarios approach to analyze global warming and climate change, the alternative ways in which this issue could unfold, and Texaco's options. SMG also led a study of sustainable development and corporate social responsibility issues.

### Creating the Strategic Context

The scenarios and related research created the “strategic context” for a number of subsequent investment and policy decisions at Texaco. A few are highlighted below.

The company created Texaco Energy Systems Inc. (TESI) in 1999 to explore opportunities in fuel cells, hydrocarbons-to-liquids, and alternate fuels. Today, among other initiatives, TESI manages Texaco’s participation in the California Fuel Cell partnership, a collaboration involving energy and auto companies.

In mid-2000, Texaco purchased a 20-percent stake in Energy Conversion Devices (ECD), with a view to commercializing “green” energy technologies. Today, Texaco Technology Ventures (TTV) manages that relationship which includes advanced battery, hydrogen storage, and fuel cell joint-ventures. Texaco is also piloting the use of photovoltaic technology with ECD.

The scenarios enabled Texaco to revisit its policies on climate change. The SMG-facilitated study of how this issue could unfold, prompted Texaco to withdraw from the Global Climate Coalition, launch a greenhouse gas emissions management program, and explore flexibility mechanisms. This repositioning enhanced the company’s standing with key stakeholders.

The study of sustainable development enabled Texaco’s policy makers to better appreciate the changing societal expectations of multinational corporations and key elements of above-ground risk. As a result, Texaco was able to reposition itself on issues like human rights, community development, and the management of security in volatile political environments. The overall effort was responsible for Texaco’s inclusion on the Dow Jones Sustainability Group Index.

## Conclusions and Reflections

The scenarios generated corporate-wide awareness of the challenges and opportunities Texaco faces in a rapidly changing business environment. The strategic context they provided, enabled management to make far-reaching portfolio, investment and policy decisions. Several of these were above and beyond the scope or mandate of any one business unit.

The corporate scenario process was a valuable learning experience for SMG. Notwithstanding the CEO’s support, the team realized that executive endorsement was no guarantee of buy-in. As a result, team members had to personally champion initiatives in which they firmly believed.

In pursuing a pioneering role that was somewhat separate from Texaco’s traditional planning process, SMG found that it had traded relevance for independence. It was difficult to make the scenarios and their implications relevant to managers driven by nearer-term business metrics.

Notwithstanding executive interest in the qualitative, SMG also found that it was dealing with a corporate mind-set that valued numerical estimates over concepts and ideas. The team had to be creative to navigate its way through a corporate culture that was more comfortable with “business as usual” thinking than “outside the box.”

Some business unit managers were skeptical of the usefulness of the scenario process and were unwilling to commit resources. A few strategy development projects were cancelled as a result. For the projects that did move forward, SMG found it had to constantly emphasize the *external* perspective to counter the tendency to focus on the internal. The benefits were later obvious.

SMG realized that the scenarios were not an end in themselves, but a means to an end in terms of the implications and challenges they evoked. As a consequence, SMG was careful in its use of the term “scenario,” preferring instead to refer to “challenges” and “strategic alternatives.”

The scenarios’ and their implications appeared to resonate with most audiences. The challenge for SMG, however, was getting key decision-makers to initiate responsive action. In addition to greater relevance, a more robust communication strategy may have served SMG better.

Further, time and again SMG found it challenging to get audiences to focus on the evolving needs of the end-*consumer*. SMG suspected that this was probably the result of a dominant engineering or asset-oriented mind-set at Texaco, and the predominant B2B business model.

On a positive note, SMG worked hard to engage and cultivate a select group of like-minded individuals from across Texaco at the corporate and business unit level. This ensured wide input and diverse perspective, and provided a base of internal support for key agendas.

Finally, though the original scenarios covered a 10-15 year period, change has occurred more rapidly than anticipated. The pace of geopolitical shifts, environmental policy changes, new energy technologies, and revamped customer-vendor relationships, has generally accelerated.

This speaks to the need to revisit and keep scenarios updated. It also highlights the difficulty of setting aside one's implicit biases to look beyond the immediate horizon, while still retaining relevance to a highly competitive business.

## **SMG TODAY**

Since the development of the corporate scenarios, SMG has applied the scenario process to numerous projects within Texaco. In fact, in a unique hybrid approach involving the integrated application of real options valuation with scenario tools, SMG assisted several business units with developing a robust and dynamic road-map, and quantifying the value of their potential opportunities.

Today, SMG continues to foster strategic conversations within Texaco through analytical papers and executive presentations. These conversations have been enriched through numerous work-shops, as well as through participation and presentations at external forums.

SMG's bi-weekly publication, *Signposts*, (115 issues published to date) continues to keep the scenarios alive by providing insights into trends in the business environment. An SMG intranet website serves as a comprehensive repository of the group's analyses and collective knowledge.