

## Contents

Introduction	1
Investor Issues and Concerns	2
Asset Allocation: An Evolving Landscape	5
The Changing Regulatory Environment	9
Best Practices	10
Conclusion	11
Appendix	12
Acknowledgements	14

## Preparing for Shutdown

### Shifting Attitudes Toward Nuclear Decommissioning Trusts

- **NDT asset allocation is becoming more broadly diversified.** Equities, once off-limits to NDT fund managers, now typically represent 60 to 65% of fund assets. Portfolios increasingly include mid- and small-cap allocations as well as international asset classes.
- **Alternative investments may soon enter the asset allocation mix.** A small but growing number of utilities are considering hedge funds and real estate as a way of improving returns and managing volatility. The Bank of New York predicts that by 2011 the typical allocation to alternatives will reach 15%.
- **Underfunding of NDTs remains a concern.** While most NDT sponsors are confident that funding levels match current cost estimates, uncertainty persists about long-term waste disposal options and obligations.
- **Regulators are becoming more open to diversified investment strategies.** They understand utilities' concerns about underfunding and the difficulty of projecting waste disposal costs accurately.
- **Most utilities target after-tax returns of 6 to 7%.**
- **Plant license renewals are viewed as a potential means of ensuring adequate funding.** Extending the longevity of a nuclear plant to 60 years allows more time to accumulate assets.
- **Pour-over provisions of the 2005 Energy Policy Act may hasten the disappearance of non-qualified NDTs.** Utilities are weighing the tax benefits of transferring assets from non-qualified to qualified trusts.
- **NDT asset management is benefiting from best practices.** Practical approaches to projecting costs, optimizing investment performance, managing risk and evaluating fund managers emerged from interviews with industry participants.

# Introduction

Over the past three decades, the nation's electric utility industry has been transformed by deregulation, consolidation and the elimination of federal "black lung" investment restrictions. Nowhere is the impact of these changes more evident than in the management of nuclear decommissioning trusts (NDTs).

In recent years, plant owners have voiced concerns about NDT funding adequacy, investment performance and management, market volatility, radwaste disposal costs and industry regulation, among other issues. This paper examines current trends in investor and regulator attitudes and expectations with regard to NDTs.

In-depth interviews were arranged by The Bank of New York and conducted with 23 investment, treasury and financial officers at major public utilities throughout the United States, as well as federal and state regulators and industry observers. Their views are reflected in these pages without explicit attribution. In terms of asset size, the NDTs on which utility interviews focused ranged from under \$100 million to \$5 billion and included both qualified and non-qualified trusts.

# I. Investor Issues and Concerns

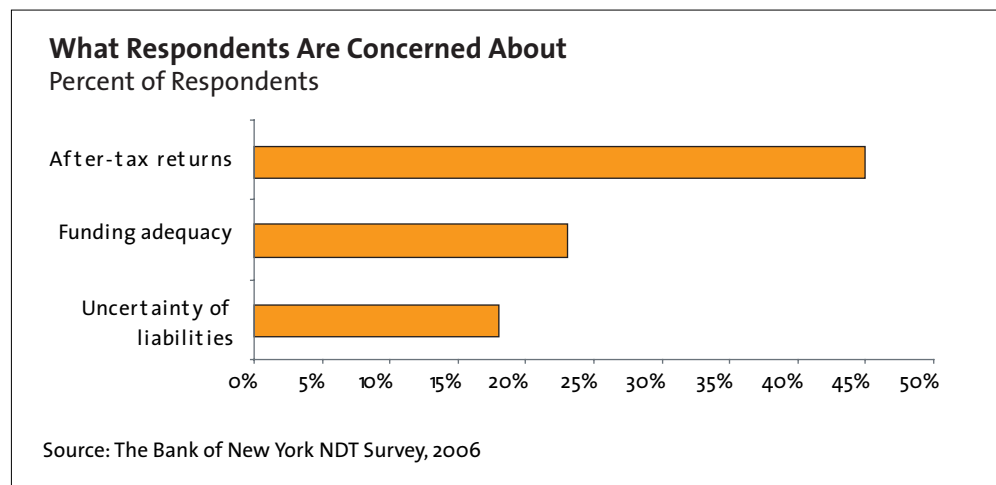
## The rising cost of waste disposal

Decommissioning a nuclear power plant is a costly undertaking. According to the Nuclear Regulatory Commission (NRC), the minimum amounts required “for reasonable assurance of funds for decommissioning” are \$290 million for a pressurized water reactor and \$370 million for a boiling water reactor. However, liability estimates are periodically revised upward, and the unpredictability of decommissioning costs—in particular, the cost of both high- and low-level radwaste disposal—is likely to push the bill much higher.

Some survey participants expressed confidence that their NDT asset allocations were on track and thus unlikely to come up short. “We recently completed a five-year check-up and new cost estimate and found that our contributions needed to be increased by just a hair,” said one. “So, I think we’re right on target and unlikely to have a shortfall.”

Almost half of those surveyed rate after-tax returns as their most important concern.

However, many listed funding adequacy and after-tax investment performance as their most compelling concerns. To a large extent, these issues are related to the disappointing returns that have characterized the equity and bond markets since the end of the dot-com boom.



## A dearth of data

Concerns about underfunding are hardly unique to institutional investors. However, what sets the liability structure of NDTs apart from, say, pension funds, is the scarcity of historical information on which to base future cost projections.

“With defined benefit plans,” noted one interviewee, “you can say with a degree of certainty, ‘This is what our future liability will be,’ and set asset allocation and return targets accordingly. But that can’t be done with NDTs because there hasn’t yet been a large-scale decommissioning of nuclear plants. We’re not far enough along in the process to have compiled a usable body of historical data.”

### Mitigating the risk of underfunding

A major variable in discussions about funding adequacy is the cost of radwaste disposal. Spent nuclear fuel and other high-level radioactive wastes are stored at 126 sites in 39 states at the expense of the utilities. As several state regulators noted, on-site disposal costs are currently paid for out of the utility NDTs. Ultimately, however, the cost will have to be borne by the federal government.

There was broad agreement on both the utility and regulator sides that the decentralization of radwaste disposal not only places a disproportionate economic burden on the utilities, but that it will ultimately fail as on-site storage capacity approaches the saturation point. On the face of it, a technology-based approach—such as recycling used uranium to shrink waste volumes—would seem the most practicable and cost-effective. But no recycling technologies have yet been devised that would yield more than a marginal reduction.

### Yucca Mountain: Pipe dream or long-term solution?

Many respondents suggested that the only true solution to the waste disposal problem would be the creation and maintenance of a central, federally funded geologic repository, such as the proposed storage terminal at Yucca Mountain in Nye County, Nevada. On the boards since 1978, the Yucca Mountain project has not progressed beyond the design-and-concept stage. Operations are targeted to begin in 2010, but survey participants suggest that, despite active lobbying efforts in Washington, it is highly questionable that the deadline will be met.

The true solution to waste disposal is a central, federally funded geologic repository.

“Everyone says, ‘nuclear is so cheap,’ but they’re only talking about the incremental cost and ignoring the waste issue,” said one participant. “I don’t know how we can just go boldly forward without getting a solid answer on the waste issue. But I don’t hear that in the discussion or the debate. All I hear is, ‘We’ve got to find something to burn besides oil and natural gas.’”

### Dealing with uncertainty

Absent any model for accurately projecting waste disposal costs and, more generally, ensuring that NDTs are adequately funded, utilities employ a number of strategies for mitigating the risk of a shortfall. These strategies include:

*Periodic reassessment:* Utilities are required by the NRC to conduct biennial liability reviews of their NDTs. “When the review is completed and we have an accurate assessment of our decommissioning liability, we’ll follow up with an asset allocation study performed by an independent consultant,” said an interviewee. “Based on those findings, we’ll adjust our allocation accordingly.” That approach appears to be typical.

Several participants said they used escalation curves, Monte Carlo simulation and other quantitative techniques to project future waste disposal costs, which are rising much faster than core inflation. “We typically assume a 2-3% volatility on the liability side, then look at worst- and expected-case scenarios,” said one survey participant. “We then try to reduce the former and move the latter toward where it’s more and more positive.” Another participant put his utility’s waste disposal escalation factor at 7.5%. “It’s pretty high,” he conceded. “But who knows if it will cover the costs or not?”

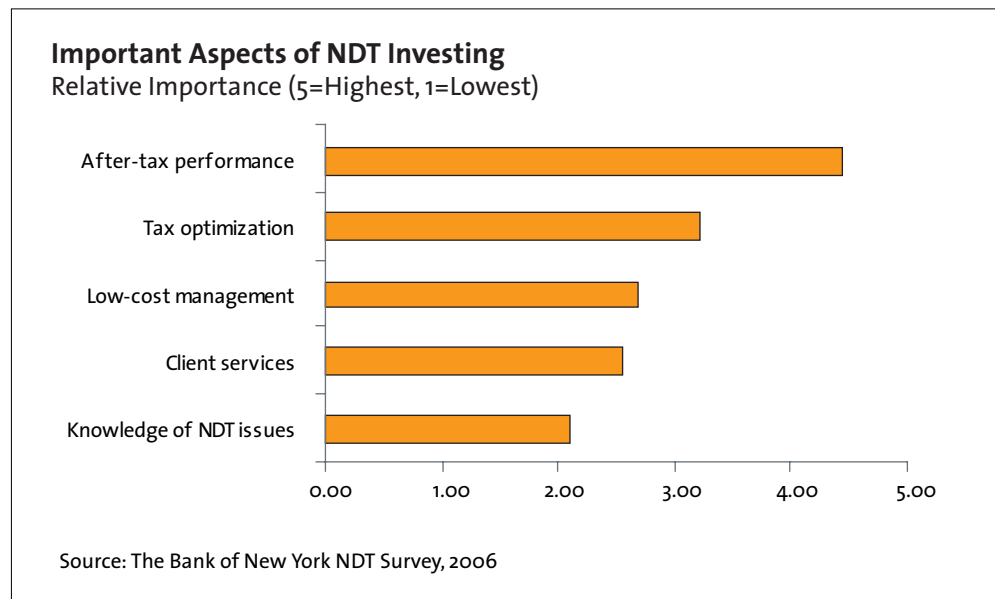
**License extensions:** Adequate funding is by no means the primary purpose of plant license renewal applications. But it is universally recognized to be an important benefit of the life extension process nonetheless. Just as there would be little sense in scrapping a 10-year-old automobile in good running condition, “it obviously makes good sense to seek a license extension for a power plant that’s still functioning well,” said a respondent. But the funding benefit is obvious: A license renewal pushes out an NDT’s investment horizon, “giving us more time to accumulate funds and lowering the returns we need to achieve in any one year,” said a study participant.

Another suggested that license renewals, which can potentially extend the life of a nuclear plant to 60 years, all but eliminate the risk of underfunding: “Even if you didn’t collect another dime after the 40-year point, the earnings on the money already in the trust should be adequate,” he said. “If the plant is placed in SAFSTOR, you’d simply let the fund accumulate and at some point it would catch up with your total obligation, and you could start the decommissioning process.”

**Portfolio diversification:** The case for asset diversification is much the same for NDTs as it is for portfolio strategies in general: Broad diversification across asset classes offers the greatest potential for managing risk, reducing portfolio volatility and maximizing total return, especially over the long term. Diversification would seem to be especially well-suited to the purposes of NDTs, given their long time horizons.

Broad diversification offers the greatest potential for managing risk, reducing portfolio volatility and maximizing total return—especially over the long term.

As noted earlier, funding adequacy was one of the top three concerns; not surprisingly, over half of the respondents envisioned some shift in asset allocation strategy in the foreseeable future—a moderate movement toward broader diversification “as a way of smoothing out the ride over the long term,” as one respondent put it. The chart below illustrates the importance respondents attached to five key variables with respect to investment strategy.



### Overfunding: A “welcome” problem?

All things being equal, it is better to have too much money than not enough. But while a small minority of respondents saw a positive side to NDT over funding, many more viewed it as problematic. Among other things, over funding implies that capital has been needlessly diverted from other corporate needs.

“The idea is to be fairly funded and to adjust your asset allocation over time to match your liabilities.”

There was also a prevailing view that when the first major wave of decommissioning bills come due later in this century, over funding will be the rule rather than the exception. As one survey participant put it, “The need to demonstrate to the NRC every two years that your investments are on track improves the likelihood that you’ll have at least enough money by the time you apply for a license extension.” Another predicted that the trend toward license extensions could result in “a surge in over funding.”

Most interviewees felt that adequate funding—neither too little nor too much—represented the ideal. A typical comment: “The idea is to be fairly funded and to adjust your asset allocation over time to match your liabilities.” As decommissioning day approaches, “you’re going to perform liability and cost projections more often and, hopefully, start homing in on target zero—the point where you’re neither under- nor overfunded,” said one. A surfeit of funding would argue for dialing back on asset allocation toward more conservative strategies—away from equities, and, within fixed income, toward shorter durations, or even cash.

## II. Asset Allocation: An Evolving Landscape

NDT fund managers and their clients have historically taken a conservative tack, eschewing active strategies and non-U.S. securities and favoring short-duration fixed-income instruments over equities. While strategies remain largely conservative, the investment climate has clearly changed.

Qualified NDTs were originally subject to federally mandated “black lung” rules that restricted portfolios. The elimination of those rules in 1992 laid the groundwork for broader asset diversification.

Qualified NDTs were originally subject to federally mandated “black lung” rules, which restricted portfolios to U.S. Treasury securities, municipal bonds and bank or credit union obligations, such as bankers acceptances and certificates of deposit. The lifting of those rules in 1992 laid the groundwork for broader asset diversification.

### Redefining “prudent investor”

By its own account, the NRC regulates NDT asset allocation strategies only in a general sense. Gone are the days when investments were restricted to government securities and deposit certificates. As one regulatory agency spokesman explained, “We don’t have a list of proscribed or mandated investments. It’s really up to the licensees to make these decisions, within the context of broad investment guidelines. If they decide they want to spread the risk in various ways, that’s okay—we don’t have any specific rules or prohibitions.”

The prudent investor rule recognizes that a well-diversified portfolio includes investments that behave in different ways.

While concerned with funding adequacy, the NRC does not promulgate sector weightings or set limits on percentages of fund assets that may be invested in a given class of securities. Rather, both the NRC and the Federal Energy Regulatory Commission have adopted the revised “prudent investor” rule, whereby an NDT investment manager “must exercise the standard of care...that a prudent investor would use in the same circumstances.” This suggests that the selection of investments must be based on their role in a diversified investment strategy, rather than on their stand-alone performance.

An NDT manager is thus expected to factor in general economic conditions, tax consequences, targeted total return, the likely duration of the trust and other variables. The prudent investor rule recognizes that a well-diversified portfolio will, by definition, include investments that behave in different ways, thereby offsetting each other’s performance extremes. This approach helps to dampen total portfolio risk while affording managers more leeway to try to improve total return, rather than simply preserve capital.

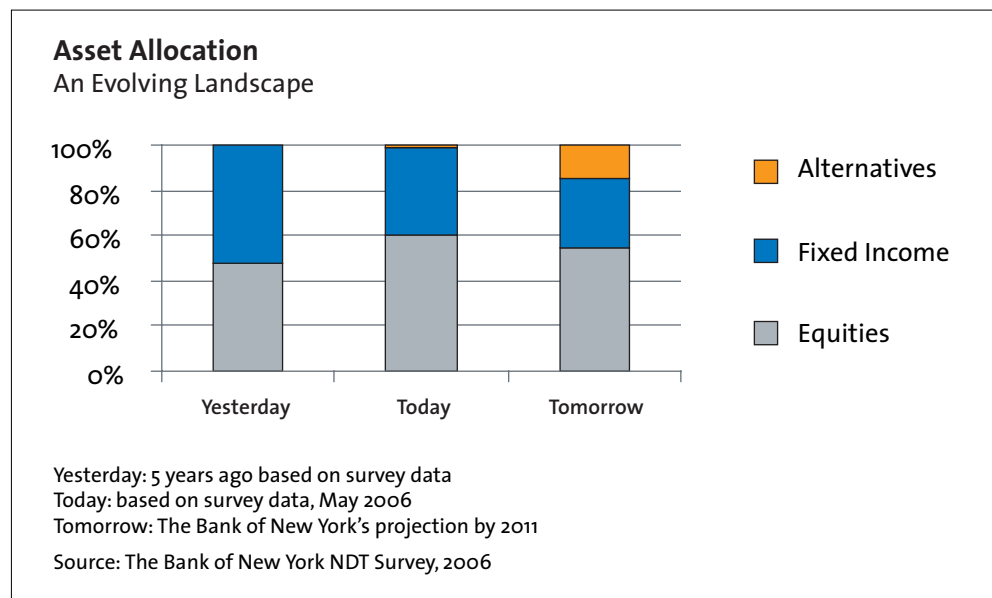
**Prevailing patterns**

Many state regulators have followed the NRC’s lead and adopted the prudent investor rule although some do in fact limit equity allocations—60% is typical. While investment strategies and philosophies varied widely among the NDTs represented in this study, certain patterns emerged:

**Asset allocation:** As a rule, qualified NDTs allocate 60 to 65% to equities and 35 to 40% to fixed income, although in a few cases the equity-fixed income ratio is closer to 75 to 25%.

**Equities:** NDTs have historically been passively managed, and a preponderance of equity allocations continue to track the S&P 500 Index or the Wilshire 5000, thus excluding all but domestic, large-cap securities. There is, however, a definite movement

An NDT manager is expected to factor in general economic conditions, tax consequences, targeted total return, the likely duration of the trust and other variables.



Participants typically target a 6-7% after-tax return.

toward more active asset management. A significant minority of interviewees indicated that their equity holdings have broadened dramatically in recent years, with small-, mid-cap, and international issues coming into the mix.

**Fixed income:** On the fixed-income side, many managers follow either the Lehman Government/Credit Index or the Lehman Aggregate Index, investing primarily in U.S. Treasuries and Agencies and investment-grade corporates. Non-qualified trusts are likely to place most or all of their fixed-income assets in non-taxable municipal bonds, although non-qualified investment strategies are now being rethought following passage of the 2005 Energy Policy Act. (See page 9.)

### The forward view

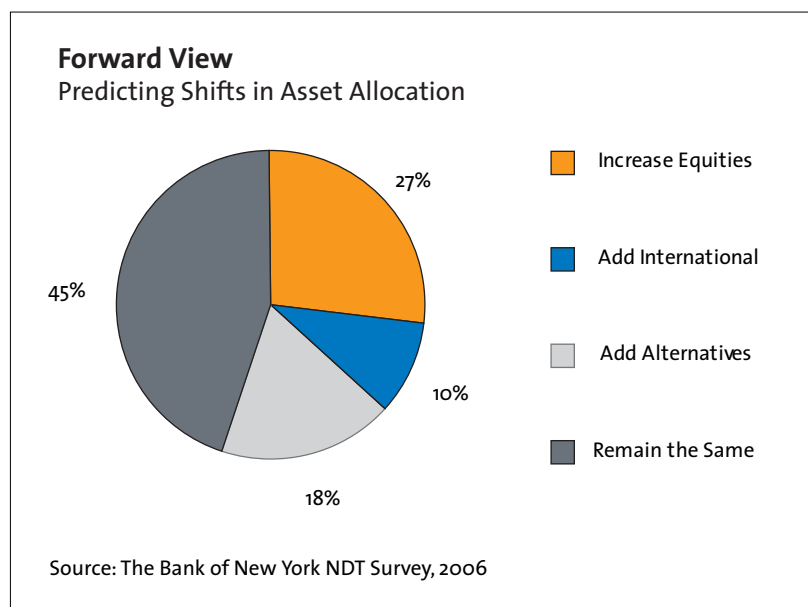
For the most part, participants expressed the view that a fundamentally conservative approach represents the surest path to achieving their target returns, which are typically in the 6-7% range (after tax). Some 45% said that their NDT asset allocations were not likely to change appreciably in the foreseeable future. However, 55% acknowledged a need for diversifying beyond their current asset mix.

55% of participants acknowledge a need for diversifying beyond their current asset mix.

“We take a conservative, minimal-risk approach,” explained one interviewee. “The goal is total return—not the best possible return.” Another put the issue in terms of manager selection: “We don’t look for just the highest-performing alpha managers. Instead, we hire the managers who can provide the best overall risk-adjusted return.”

### Focus on alternative investments

Most study participants do not currently include alternative investments in their asset allocation. However, as the pie chart below illustrates, 18% of the utilities taking part in this study are looking into alternative investments as a way of enhancing returns while reducing risk. They feel that it is only a matter of time before hedge funds—or, more probably, funds of hedge funds—begin finding their way into NDTs.





“We have a plan underway to allocate a maximum of 10% of our NDT assets to hedge funds and will be seeking approval shortly,” said one utility investment officer, noting that hedge funds already serve as “a portfolio diversifier and risk reducer” in the company’s pension fund. “The important thing is to use funds-of-hedge funds so that we’re diversified across multiple managers and strategies,” he added.

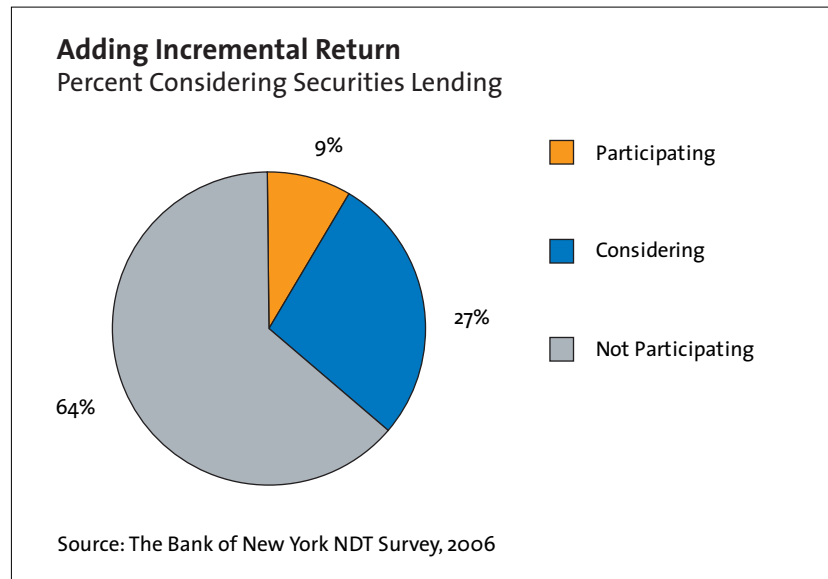
### The case for securities lending

Institutional fund managers—including those managing pension funds at many of the utilities represented in this study—often employ securities lending as a means of optimizing portfolio performance and generating incremental revenue. While securities lending plans are not yet a widespread practice among NDTs, many are considering it.

Lendability—or, more precisely, its lack—is the most common barrier. As many respondents explained, there is no borrower demand for securities held within an index fund or commingled account. Other concerns focus on counterparty risk and alignment with overall investment guidelines; several respondents said that securities lending plans at their companies had been proposed and investigated.

Of those sponsors that do employ securities lending programs, there is general consensus that it is not a significant source of revenue due to the limited lendability of their securities. “It’s not a huge money-maker,” said one. “But it helps us defray some of our custodial fees.”

Securities lending is another way NDTs can generate incremental return.



### III. The Changing Regulatory Environment

*Reporting requirements:* Changes in FAS reporting and disclosure requirements over the past three years have imposed additional accounting burdens on NDT sponsors and managers. However, virtually all of the study participants agreed that these requirements have had minimal, if any, measurable impact on NDT-related activities.

Companies are studying the pros and cons of taking advantage of the pour-over provision of the 2005 Energy Policy Act.

*Energy Act:* Most interviewees expected that the 2005 Energy Policy Act would not have significant implications for NDT management and investment decisions with one important exception: The Act's "pour-over" provision permits utilities for the first time to transfer funds from non-qualified trusts, which are generally taxed at a 35% rate, to qualified trusts, taxed at 20%.

To be sure, only a small percentage of total decommissioning assets are currently held in non-qualified trusts. For that reason, the pour-over provision represents a marginal benefit at best to affected utilities. Survey participants said that their companies were continuing to study the pros and cons of taking advantage of the provision. Should it prove worthwhile to transfer the assets, they would probably sell off all of or most of their tax-exempt holdings.

## Best Practices: An Industry Checklist

Interviews with utility industry participants revealed these seven approaches to more effective NDT management:

- Review and update liability estimates on a regular basis.**  
Decommissioning cost projections rise continually. Applying quantitative techniques and models on a fixed schedule can enable a utility to determine if its NDT is on track to cover costs and make revisions accordingly.
- Review asset allocation on a regular basis.**  
A broadly diversified NDT portfolio, which can include fixed income, equity, international and alternative investments, provides the best likelihood of superior risk-adjusted returns over the long term. Based on trends observed by participants, it would not be surprising to see alternative investments represent about 15% of NDT portfolios by 2011.
- Conduct periodic reviews of manager performance.**  
Measuring equity and fixed-income performance against industry benchmarks and peer groups can ensure that NDT assets are optimally allocated and managed. If you have decided to switch asset managers, the use of an experienced transition manager can help ensure an efficient changeover.
- Leverage risk management tools.**  
The use of performance metrics and risk budgeting techniques can ensure that NDT risk parameters are kept within defined guidelines.
- Clarify and apply relevant “prudent investor” standards.**  
In today’s investment universe, techniques once considered speculative—or even disallowed by law—are increasingly entering the mainstream. These include alternative investments and securities lending plans. Researching and compiling a list of top-performing alternative investment managers can be an important first step toward establishing a true “prudent investor” approach.
- Conduct regular competitive reviews of vendors and vendor offerings.**  
Custodians, technology firms and other vendors develop and market a broad range of value-added products and systems related to every aspect of fund management. Systematic evaluation of vendors and vendor offerings can yield tangible benefits for NDTs.
- Monitor regulatory changes.**  
Revisions in federal and state regulations often have important implications for NDTs in terms of reporting, asset allocation, disclosure and tax requirements. It is thus critical for NDT sponsors to monitor all proposed and approved rule changes, both to ensure full compliance and to reap the full benefits.

## IV. Conclusion: The Next 60 Years

Nuclear decommissioning trusts have long been managed conservatively—both in compliance with government regulations, and in the service of asset preservation and funding adequacy. But times have changed as regulatory restrictions on investments have been relaxed. And decommissioning costs are climbing far more rapidly and steeply than core inflation.

In recent years, a trend toward flexibility in investment guidelines has allowed NDT managers to adjust their asset allocation strategies to the marketplace. By implementing industry best practices, such as periodic updates of liability estimates, ongoing investment reviews, and asset allocation adjustments, NDTs have made progress towards more fully funding their decommissioning liabilities.

But clearly more needs to be done. While there is still a strong case for investment conservatism, some utilities are moving to enhance their returns, using—or considering the use of—securities lending, alternative investments, and equity classes beyond the S&P 500. The degree to which their more cautious peers follow suit remains to be seen. The Bank of New York projects that by 2011, the typical NDT asset allocation will have shifted from its current 60% equities/40% fixed income ratio to 55% equities, 30% fixed income and 15% alternatives.

Asset allocation will shift to 55% equities, 30% fixed income and 15% alternative investments by 2011.

This much, however, is certain: License renewals will extend the life span of existing plants well into the latter half of the century. Ensuring that the funds will be available to give them a proper decommissioning is a challenge that must be faced today.

# Appendix

## **Nuclear energy: Historical background**

Nuclear power has provided a meaningful portion of the nation's energy needs since the first commercial-scale reactor went on line in Shipping port, Pennsylvania, in 1956. In the years since, however, the growth of nuclear power in the United States has been anything but consistent. The pace of plant construction accelerated through the 1950s and 60s, peaking by the early 1970s, but then slowing to a virtual standstill by the close of that decade.

By the late 1970s, capacity had significantly outstripped baseload electricity demand and nuclear plant construction had become prohibitively expensive. The Three Mile Island accident in 1979 and, later, the Chernobyl meltdown, in 1986, dampened public enthusiasm for nuclear energy.

But interest in alternative energy sources—notably nuclear fusion—has revived in recent years, driven by environmental and economic concerns. To be sure, construction costs for nuclear energy facilities remain high, but operating costs are lower than those for oil and gas-fueled facilities. According to a recent study by the Energy Information Administration, nuclear fuel costs average less than one half cent per kilowatt-hour, which is significantly below those of fossil fuels. Nuclear energy is also cleaner than conventionally generated energy, producing no greenhouse gas emissions and providing a potential means of weaning the U.S. off its dependency on fossil fuels.

## **Nuclear energy today: A statistical snapshot**

Some 103 nuclear plants, with a combined output of 99.2GW, are currently in operation in the U.S., accounting for 22% of total U.S. power generation and making the U.S. the world's largest supplier of commercial nuclear power. By comparison, coal-fired plants generate slightly more than 50% of the nation's electrical power, and oil and gas approximately 20%.

Notwithstanding the lack of new construction since the 1970s, various factors—particularly tax incentives and loan guarantees embodied in the 2005 Energy Policy Act—have triggered interest in new construction investment. In December 2005, the NRC certified the first new reactor design in years—Westinghouse's 1000MW advanced passive reactor. Meanwhile, at least six U.S. power plant operators are currently readying license applications to the NRC that could lead to new construction starts by 2010.

## **Deregulation**

Historically, electric utility companies operated as regulated monopolies. They enjoyed an exclusive franchise within their respective service regions, but at the cost of having their rates regulated at the state and federal levels. Landmark legislative reforms in 1978 and 1992 paved the way for industry deregulation and the introduction of competition. However, utilities remain subject to regulatory oversight by state Public Utility Commissions, the NRC and the Federal Energy Regulatory Commission.

# Authorship

*We would like to acknowledge the contributions made by the following industry experts who made this paper possible...*

## **The Bank of New York**

Margo Cook, Executive Vice President, Head of Institutional Asset Management  
Peter Keller, Managing Director, Energy Division  
Keith Sprauer, VP, NDT Portfolio Manager

## **Editorial Support**

Aniko Delaney, Managing Director, Global Marketing  
Bruce Felton, Writer  
Michelle Nulty, VP, Global Marketing

*Additional thanks go to the following individuals who participated in the development of this paper...*

Craig J. Anderson, Frederick Bailey, Doug Conroy, Harrison Figuero, Richard Fronapfel, Richard Khaleel, Geraldine A. Lutz, Jean-Paul Marotta, Maureen M. McKeever, Gennaro Mazza, Raymond J. Palmer, Douglas Ober, James Shanley, Jason Soto, David Sunderwirth, John Watt, Jesus Williams

## Acknowledgements

Representatives of 23 leading utility companies and seven regulatory agencies participated in this survey. They provided insightful views on various dimensions of the NDT marketplace and offered their perspectives on top concerns, asset allocation and regulatory issues. We would like to thank these individuals and organizations for helping to make this study both meaningful and supportive to the NDT marketplace.

Firm/Agency	Individual	Title
American Electric Power	Scott Bishop	Investment Analyst
Alabama Public Service Commission	Clark Bruner	Public Information Specialist
Alabama Public Service Commission	John Free	Public Utility Analyst Manager
Alabama Public Service Commission	Gene Haynes	Public Utility Analyst Manager
Ameren	Kevin Redhage	Financial Professional
CMS	Don Forsblom	Director of Retirement Benefits
Dominion	Donald Borneman	Assistant Treasurer of Asset Management
El Paso Electric	Marek Swiderski	Principal Tax Accountant
Entergy	Mike Caruso	Assistant Treasurer
Exelon	Kevin Norberg	Principal Analyst
Exelon	George Shicora	Manager, Investments
FirstEnergy	Terry Conlin	Staff Analyst
Florida Public Service Commission	Andrew Maurey	Supervisor of Finance and Tax
FPL	Jason Wallace	Investment Analyst
Georgia Public Service Commission	Dan Cearfoss	Chief Public Utilities Engineer
North Carolina Utilities Commission	Thomas Farmer	Director
NY State Department of Public Service	John Roberts	Utility Supervisor
Oglethorpe Power Corporation	Alison Derr	Treasury Services & Investments Manager
Old Dominion Electric Cooperative	Karen Huddle	Manager, Treasury Services
Pinnacle West	Janice Emery	Director, Trust Investments
PNM Resources	Edmond Jeung	Director
PPL	Sunny Hatten	Director of Investments & Pensions
PPL	Dale Kleppinger	Director of Treasury
Progress Energy	Donald Ray	Principal Investment Specialist
PSEG	Peter Caruso	Manager Trust Investments
Salt River Project	Jason Riggs	Treasury Analyst
SCANA	Mark Cannon	Assistant Treasurer
Southern Company	Dekia Scott	Trust Analyst
The Nuclear Energy Institute	Richard Meyers	Executive Director of Policy Development
TVA	Eric Davis	Senior Financial Analyst
TXU	John Thompson Jr.	Trust Investments Manager
U.S. Nuclear Regulator Commission	Steve Hom	Senior Financial Policy Advisor
Westar Energy	Jeff Beasley	Director of Corporate Finance
Westar Energy	Zachary Moser	Financial Analyst
Wisconsin Energy	Michael Kaminski	Manager-Corporate Risk Management

# The Bank of New York

The Bank of New York Company, Inc. (NYSE: BK) is a global leader in providing a comprehensive array of services that enable institutions and individuals to move and manage their financial assets in more than 100 markets worldwide. The Company has a long tradition of collaborating with clients to deliver innovative solutions through its core competencies: securities servicing, treasury management, investment management and private banking services. The Company's extensive global client base includes a broad range of leading financial institutions, corporations, government entities and endowments and foundations. Its principal subsidiary, The Bank of New York, founded in 1784, is the oldest bank in the United States and has consistently played a prominent role in the evolution of financial markets worldwide. Additional information is available at [www.bankofny.com](http://www.bankofny.com).

## Institutional Asset Management

Margo Cook, <i>Executive Vice President</i>	212 237 0865
James Barrett, <i>Managing Director</i>	212 237 0810
Douglas Ober, <i>Managing Director</i>	212 237 0821
Jason Soto, <i>Vice President, Consultant Relations</i>	212 237 0851
Keith Sprauer, <i>Vice President, NDT Portfolio Manager</i>	212 237 0879

## Client Executives

Peter Keller, <i>Managing Director</i>	212 635 7861
David Sunderwirth, <i>Vice President</i>	212 653 8804

## Custody

Doug Conroy, <i>Vice President</i>	770 698 5106
James Shanley, <i>Vice President</i>	212 635 8318

## Transition Management

Frederick Bailey, <i>Managing Director</i>	212 468 7725
--	--------------



The Bank of New York Company, Inc.  
One Wall Street  
New York, NY 10286  
[www.bankofny.com](http://www.bankofny.com)

© 2006 The Bank of New York Company, Inc.  
All rights reserved.