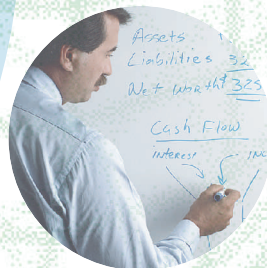




CRISIS IN THE CAPITAL MARKETS:

Can Utility Infrastructure, Renewable Energy and Other Environmental Initiatives Be Financed at a Lower Cost of Capital to Consumers and Reduced Financial Risk to Utilities thru Securitization?

National Association of Regulatory Utility Commissioners' Meeting
New Orleans, Louisiana
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CRISIS IN THE CAPITAL MARKETS:

Can Utility Infrastructure, Renewable Energy and Other Environmental Initiatives Be Financed at a Lower Cost of Capital to Consumers and Reduced Financial Risk to Utilities?

Public Utilities will be financing new power plants, environmental control systems and other infrastructure improvements over the next decade. These expenditures have been estimated to exceed \$250 billion¹. While internally generated sources are expected to fund the majority of these expenditures, conservative estimates still project the need for \$75 billion or more in externally raised debt and equity capital to complete these projects.

The Issue:

Utilities will need regulatory recognition of these rate base additions in retail customer rates. Using traditional capital structures to support rate requests to state public utility commissions will place significant upward pressure on customer rates at a time when these same customers are experiencing unprecedented price increases and decreased ability to meet expenses in almost every other facet of their lives.

A significant portion of the proposed rate increases will be related to cost of capital. State public utility commissions will be expected to fully vet these proposed rate increases in rate cases to ensure that utilities are using the lowest cost capital available.

To maintain the financial integrity of utilities and to minimize the rate impact on customers, state public utility commissions should consider supporting or proposing the use of an innovative financing option which can materially reduce the cost of capital for major rate base additions.

The current crisis in the capital markets has dramatically increased the cost of credit for utilities and ultimately for consumers. However, it may be possible to mitigate the impact on consumers by using a financing technique known as securitization.

Mitigating Rate Increases:

Securitization is a financing methodology that has emerged over the past 10 years as an effective method for lowering the cost of long-term project related debt and allowing for the use of more leverage in the overall cost of capital without negatively affecting the bond ratings of the utility. The use of additional leverage without negatively affecting the financial viability of the utility can result in lower rates for consumers than would otherwise result from the use of traditional financing. It can also reduce financial risk to the utilities.

Recent reports by Standard & Poor's² and Moody's³ have acknowledged securitization as a powerful tool to recover prudently incurred costs in the most cost efficient manner possible in

¹ Edison Electric Institute estimate Summer 2008

² See ""Utilities Rediscover A Powerful Tool for Recouping Environmental and Storm Costs" from www.standardandpoors.com/ratingsdirect

³ See "Financial Metrics/ Valuation: Is There a Role for Securitization Bonds? In "New Nuclear Generation in the United States" and "Beyond Stranded Cost Recovery: New Cost Recovery Bonds Represent Variations on Stranded Cost Bonds" from Moody's

the capital markets. Securitization, however, requires legislative approval and full regulatory review before its implementation in order to be effective as a financing tool.⁴

Saber Partners has successfully assisted in extended the use of securitization to the financing of major environmental facilities in West Virginia as the representative of the West Virginia Public Service Commission and the recovery of storm costs as the representative of the Florida Public Service Commission in Florida. Ratepayers in those states have benefited from these efforts. Estimated **ratepayer savings** in West Virginia versus traditional public utility capital raising methods was **\$130 million on \$450 million in environmental upgrades** and **\$150 million in Florida for \$650 million of storm cost recovery and building of storm reserves.**

Questions to Consider/Next Steps:

To prepare for the possible use of securitization in the next round of infrastructure, renewable energy and environmental financing, we suggest the following. Results are *not* automatic but require diligence on the part of Commission and staff and consumer advocates working in partnership with the utility:

- 1) NARUC should consider developing a model legislative framework for securitization to be used by state Commissions. The appropriate legislative framework is essential for market acceptance but also to ensure necessary consumer safeguards and clarity of the authority and role of Commission in the process.
- 2) State Commissions should consider review procedures where it might *require* securitization where it is shown to help mitigate rate increases. This has been discussed in Wisconsin.
- 3) State Commissions must have authority to retain expert assistance in evaluating any proposed use of securitization. Experience in other states has demonstrated that savings increase substantially from active Commission involvement in the process.
- 4) If a securitization is approved and as the repayment falls fully on the ratepayers not the utility, the ratepayers must be fully represented by the Commission in the structuring, marketing and pricing of any transaction to maintain public trust in the process and savings in the negotiations with underwriters.
- 5) State Commissions should adopt a “lowest cost” standard in evaluating the structure, marketing and pricing of securities issued.

Saber Partners has effectively represented the interests of State Commissions on over \$8 billion in securitization financings. We are prepared to use that experience and success to advise utilities, state Commissions and consumer groups in the near future as they take on the challenges of raising capital in a very difficult financial climate...one that may continue for the foreseeable future. See NARUC Winter Meeting 2006 presentation: http://www.narucmeetings.org/Presentations/elec_securitization_fichera_w06.pdf

⁴ See “Lowering Environmental and Capital Costs with Ratepayer-Backed Bonds” Natural Gas & Electricity, © 2007, February, Wiley Periodicals, Inc. <http://saberpartners.com/oped/lowering-costs.pdf>

**Experienced State Commission Staff and Other Resources for
“Questions and Answers” on Securitization Issues**

The individuals below have detailed, first-hand experience in the use of utility securitization from concept to closing.

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Summary of Utility Ratepayer-Backed Bond Offerings 1997-2008

Date	Issuer	State	Ratings	Size (\$mm)	Lead Underwriters	State Commission's Financial Advisor	Use of Proceeds
Nov-97	PG&E, Ser. 1997-1	California	Aaa/AAA/AAA	2,901.0	MSDW/LEH	None	Stranded Costs
Dec-97	SCE, Ser. 1997-1	California	Aaa/AAA/AAA	2,463.0	SSB/LEH	None	Stranded Costs
Dec-97	SDG&E, Ser. 1997-1	California	Aaa/AAA/AAA	658.0	MSDW/LEH	None	Stranded Costs
Dec-98	Montana Power	Montana	Aaa/AAA/AAA	64.0	GS	None	Stranded Costs
Dec-98	ComEd, Ser. 1998	Illinois	Aaa/AAA/AAA	3,400.0	GS/ML/SSB	None	Stranded Costs
Dec-98	Illinois Power, Ser. 1998-1	Illinois	Aaa/AAA/AAA	864.0	ML/SSB	None	Stranded Costs
Mar-99	PECO, Ser. 1999-A	Pennsylvania	Aaa/AAA/AAA	4,000.0	SSB	None	Stranded Costs
Apr-99	Sierra Pacific	California	Aaa/AAA/AAA	24.0	GS	None	Stranded Costs
Jul-99	Boston Edison	Massachusetts	Aaa/AAA/AAA	725.0	LEH/GS	None	Stranded Costs
Jul-99	PP&L, Ser. 1999-1	Pennsylvania	Aaa/AAA/AAA	2,420.0	MSDW	None	Stranded Costs
Nov-99	West Penn Power, Ser. 1999-A	Pennsylvania	Aaa/AAA/AAA	600.0	MSDW	None	Stranded Costs
Apr-00	PECO, Ser. 2000-A	Pennsylvania	Aaa/AAA/AAA	1,000.0	SSB	None	Stranded Costs
Jan-01	PSE&G, Ser. 2001-1	New Jersey	Aaa/AAA/AAA	2,525.0	LEH	Bear	Stranded Costs
Feb-01	PECO, Ser. 2001-A	Pennsylvania	Aaa/AAA/AAA	805.5	SSB	None	Stranded Costs
Mar-01	Detroit Edison, Ser. 2001-1	Michigan	Aaa/AAA/AAA	1,750.0	SSB	FAC	Stranded Costs
Mar-01	CL&P, Ser. 2001-1	Connecticut	Aaa/AAA/AAA	1,438.4	LEH/SSB	None	Stranded Costs
Apr-01	PSNH, Ser. 2001-1	New Hampshire	Aaa/AAA/AAA	525.0	SSB/BS	None	Stranded Costs
May-01	WMECO, Ser. 2001-1	Massachusetts	Aaa/AAA/AAA	155.0	LEH/SSB	None	Stranded Costs
Oct-01	CenterPoint Energy, Ser. 2001-1	Texas	Aaa/AAA/AAA	748.9	ML	Saber	Stranded Costs
Oct-01	Consumers Funding, Ser. 2001-1	Michigan	Aaa/AAA/AAA	468.6	MS	FAC	Stranded Costs
Jan-02	PSNH, Ser. 2002-1	New Hampshire	Aaa/AAA/AAA	50.0	SSB	None	Stranded Costs
Jan-02	CPL, Ser. 2002-1	Texas	Aaa/AAA/AAA	797.3	GS	Saber	Stranded Costs
Jun-02	JCP&L 2002-1	New Jersey	Aaa/AAA/AAA	320.0	GS	Bear	Stranded Costs
Dec-02	Atlantic City Electric 2002-1	New Jersey	Aaa/AAA/AAA	440.0	MS	Bear	Stranded Costs
Aug-03	Oncor Electric 2003-1	Texas	Aaa/AAA/AAA	500.0	LEH/MS	Saber	Stranded Costs
Dec-03	Atlantic City Electric 2003-1	New Jersey	Aaa/AAA/AAA	152.0	MS	Bear	Stranded Costs
May-04	Oncor/TXU Electric 2004-1	Texas	Aaa/AAA/AAA	789.8	ML/WAC	Saber	Stranded Costs
Feb-05	Pacific Gas and Electric	California	Aaa/AAA/AAA	1,887.9	MS	Bear	Stranded Costs
Feb-05	Massachusetts Special Purpose RRB Trust	Massachusetts	Aaa/AAA	674.5	GS/LEH	None	Stranded Costs
Jul-05	Rockland Electric	New Jersey	Aaa/AAA/AAA	46.5	Citi/GS	Bear	Stranded Costs
Sep-05	Public Service Electric & Gas	New Jersey	Aaa/AAA/AAA	102.7	CSFB/Bar	Saber	Deferred Balances
Sep-05	West Penn Power, Ser. 2005-A	Pennsylvania	Aaa/AAA/AAA	115.0	CSFB	None	Stranded Costs
Nov-05	Pacific Gas and Electric	California	Aaa/AAA/AAA	844.5	MS/Bar/Citi	Bear	Regulatory Asset
Dec-05	CenterPoint Energy	Texas	Aaa/AAA/AAA	1,851.0	CSFB/LEH/RBS	Saber	Stranded Costs
Aug-06	JCP&L	New Jersey	Aaa/AAA/AAA	182.0	GS/Citi/Leh	Bear	Deferred Balances
Oct-06	AEP Texas Central	Texas	Aaa/AAA/AAA	1,740.0	CS/RBS/JP	Saber	Stranded Costs
Apr-07	Monongahela Power (AYE)	West Virginia	Aaa/AAA/AAA	344.5	FAC/Loop	Saber	Environmental
Apr-07	Potomac Edison (AYE)	West Virginia	Aaa/AAA/AAA	114.8	FAC/Loop	Saber	Environmental
May-07	Florida Power & Light	Florida	Aaa/AAA/AAA	652.0	WAC	Saber	Storm Recovery
Jun-07	Baltimore Gas & Electric	Maryland	Aaa/AAA/AAA	623.2	Bar/Citi/RBS/MS	PRAG	Deferred Balances
Jun-07	Entergy Gulf States	Texas	Aaa/AAA/AAA	329.5	Cit	None	Storm Recovery
Feb-08	CenterPoint Energy Transition Bond III, LLC	Texas	Aaa/AAA/AAA	488.5	Citi	None	Storm Recovery
Mar-08	Cleco Katrina/Rita Hurricane Recovery Funding	Louisiana	Aaa/AAA/AAA	180.6	CSFB	Pathfinder	Storm Recovery
Jul-08	Entergy Louisiana	Louisiana	Aaa/AAA/AAA	966.1	Citi	Pathfinder	Storm Recovery
Pending	Wisconsin Electric Power	Wisconsin		450.0	-	Saber	Environmental
				Total:	\$ 42,177.7	Last 10 Years	
				= Saber Advised Transactions of Last 5 Years	\$ 7,168	55%	\$ 13,035.0 Last 5 Years
						\$ 8,714	Total Saber-Advised

Source: SEC Documents and Bloomberg (Ratings), Press Reports

Beyond Stranded Cost Recovery: New Cost Recovery Bonds Represent Variations on Stranded Cost Bonds

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- The stranded cost model
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OPINION

Two new forms of utility cost recovery bonds have appeared in the securitization market in the past two years: the storm recovery bond and the environmental control bond, which represent variations on the traditional stranded utility cost bond or rate reduction bond. Approximately \$2.6 billion of these new types of bonds were issued in 2007 and 2008.

Moody's analytical framework for assessing the new cost recovery bonds is very similar to that for stranded utility cost bonds. As with stranded cost bonds, their credit quality relies on the integrity and reliability of the legal and regulatory regime, as they require special state legislation and financing orders by the state public service commission. The financing orders stipulate both the bond issuance as well as the credit enhancement mechanism. As with stranded cost bonds, political and regulatory risks are the primary credit concerns.

The new cost recovery bonds show that securitization can be employed by utilities in both regulated and deregulated states as an alternative source of funding for a variety of cost recoveries. They are likely to be an increasingly common source of financing for U.S. investor-owned utilities.



WHAT ARE THE NEW COST RECOVERY BONDS?

Unlike traditional stranded utility cost bonds which were exclusively issued by utilities in deregulated states, the new cost recovery bonds are being issued by utilities in both deregulated and regulated states. The traditional stranded utility cost bonds were a response to the power industry's deregulation, which caused certain investments made by utilities prior to deregulation to be "stranded" in a deregulated environment. In contrast, the new cost recovery bonds have been issued to recover costs incurred by utilities either for environmental cleanups or for repair of facilities damaged by natural calamities such as hurricanes or tornados.

Generally speaking, a cost recovery bond is a bond issued by a special purpose entity (SPE) of a utility to recover certain costs as authorized by special state legislation and a specific financing orders issued by state public service commissions (or other state utility regulatory bodies). Stranded utility cost bonds had been the most common type of cost recovery bonds, until environmental control bonds and storm recovery bonds appeared in the last two years. The new types of cost recovery bonds are generally issued by SPEs of utilities, and in a few instances, by special borrowing conduits (as in the case of the two most recent deals in Louisiana), and backed by special surcharges on customer's monthly electric bills.

Both the traditional stranded utility cost bonds and the new type of cost recovery bonds are securitizations of regulatory assets of utilities. The new types of cost recovery bonds are very similar to the traditional stranded utility cost or rate reduction bonds; however, they are not directly linked to the deregulation trend that characterized much of the industry for several years. In fact, Florida, West Virginia and Louisiana remain fully regulated but have seen issuance of the new types of cost recovery bonds.

Stranded utility cost securitization relies on legal and regulatory protection accorded by special state law. This law creates a present property right to impose and collect a non-bypassable transition charge or competitive transition charge on electricity users. The same securitization mechanism has been applied to both environmental control costs and storm recovery costs. An environmental control property or storm recovery property is created by law and a corresponding charge is imposed on and collected from electricity customers to pay back the bonds.

There was approximately \$3.7 billion worth of cost recovery bonds including \$2.6 billion of storm recovery and environmental cost recovery bonds issued in 2007 and 2008, all rated **Aaa**.

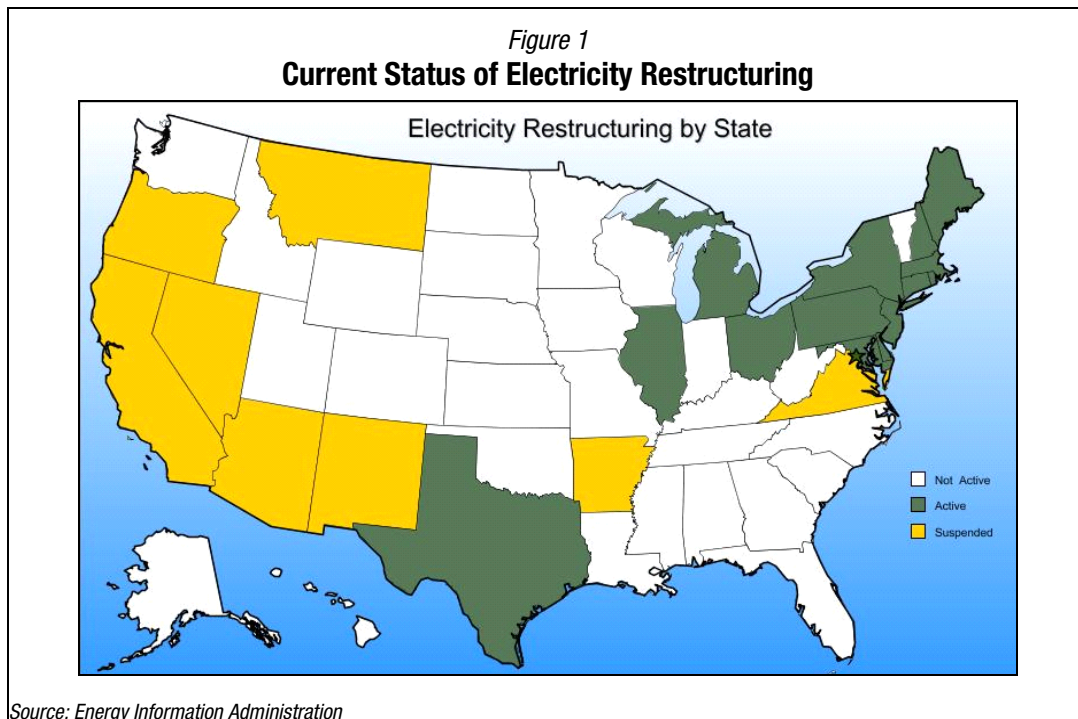
SPEs of Potomac Edison and Monongahela Power, both wholly owned subsidiaries of Allegheny Energy, Inc. issued the first two environmental control bonds to recover the construction costs of scrubbers at a 1000 MW coal-fired power plant in West Virginia, a regulated state. SPEs of Florida Power and Light Company (FPL), in Florida, also a regulated state, and Entergy Gulf States Inc., in Texas, a deregulated state, issued the first two storm recovery bonds to recover the infrastructure damage costs caused by hurricanes. A detailed list of the cost recovery bonds issued in the past two years is illustrated in *Table 1*:

Table 1
Utility Cost Recovery Bonds Issued in 2007 and 2008

Deal Name	Servicer	Issuance Amount (\$)	Type	Rating	State
MP Environmental Funding LLC - Senior Secured Sinking Fund Environmental Control Bonds, Series A	Monongahela Power	344,475,000	Environmental Cost Control	Aaa	WV
PE Environmental Funding LLC - Senior Secured Sinking Fund Environmental Control Bonds, Series A	Potomac Edison	114,825,000	Environmental Cost Control	Aaa	WV
FPL Recovery Funding LLC, 2007 Series A	Florida Power and Light	652,000,000	Storm Recovery	Aaa	FL
Entergy Gulf States Reconstruction Funding I, LLC Senior Secured Transition Bonds, Series A	Entergy Texas	329,500,000	Storm Recovery	Aaa	TX
RSB BondCo LLC	Baltimore Gas and Electric	623,200,000	Stranded Costs	Aaa	MD
CenterPoint Energy Transition Bond Company III, LLC	CenterPoint Energy	488,472,000	Stranded Costs	Aaa	TX
Cleco Katrina/Rita Hurricane Recovery Funding LLC	CLECO	180,600,000	Storm Recovery	Aaa	LA
Louisiana Public Facilities Authority - System Restoration Bds (Louisiana Utilities Restoration Corp Proj/ELL), Ser. 2008	Entergy Louisiana	687,700,000	Storm Recovery	Aaa	LA
Louisiana Public Facilities Authority - System Restoration Bds (Louisiana Utilities Restoration Corp Proj/EGSL), Ser. 2008	Entergy Gulf States Louisiana	278,400,000	Storm Recovery	Aaa	LA

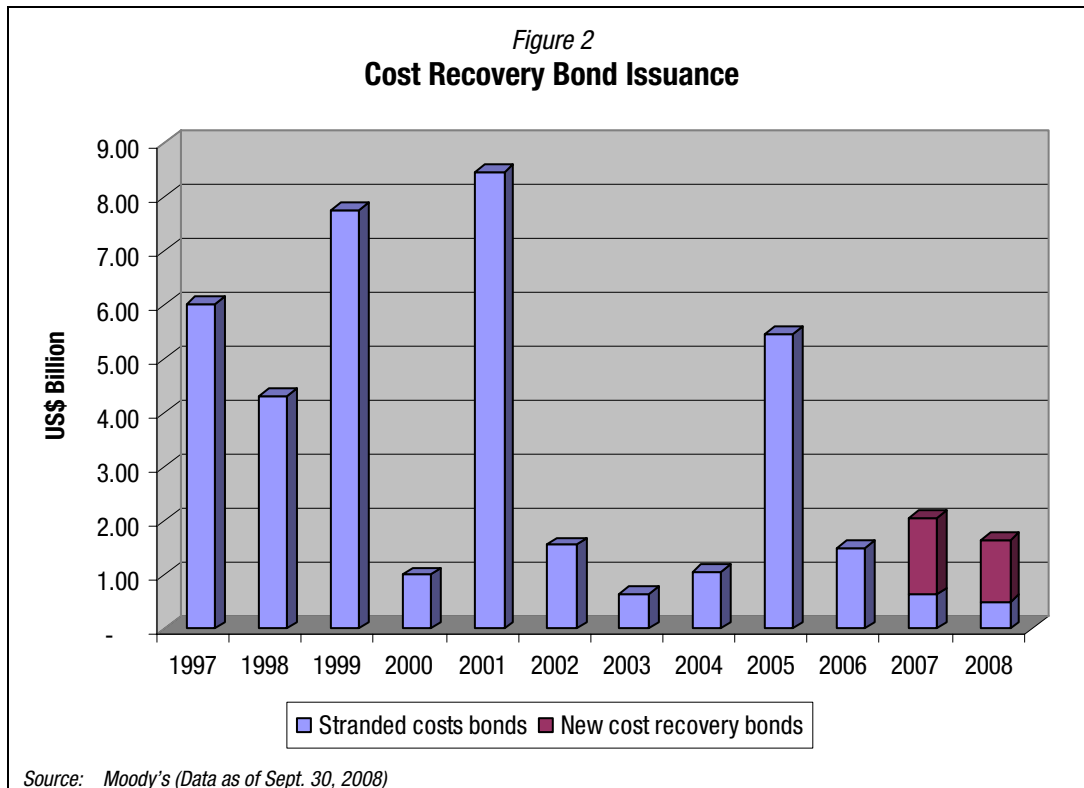
THE STRANDED COST MODEL

Stranded costs are stranded investments in facilities as well as above-market power purchase agreements by utilities prior to the deregulation or restructuring of the electricity industry in the U.S. in the late 1990s. The stranded cost framework was popular during the heyday of electricity restructuring, when most states were actively pursuing the deregulation of their investor-owned utility industry. Deregulation was brought to a standstill following the California electricity crisis in 2001, and most states have either completed or stopped their deregulation activities. Currently, electricity industry restructuring is not active in virtually any southeastern state, most Gulf states, and most mid-western states. It has been suspended in Virginia, Arkansas, Montana, and in most of the western states except Washington. Restructured electric markets are more common in the northeast, and in a few other states like Illinois and Texas. *Figure 1* illustrates the current status of the electricity restructuring see table below by state.

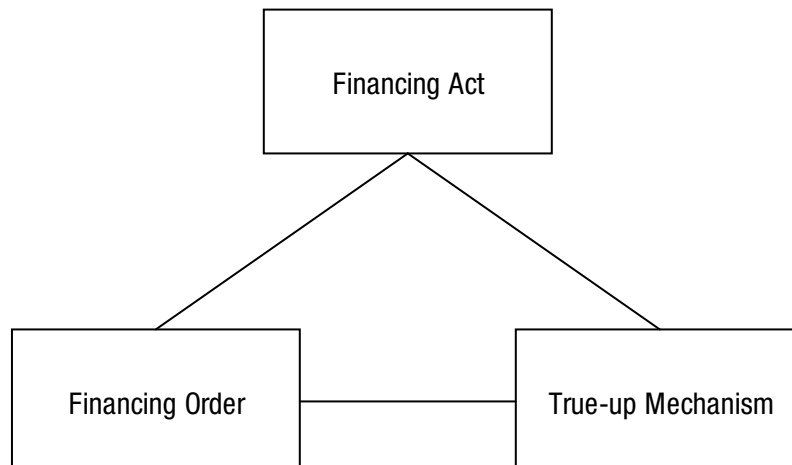


Utilities in California issued the first stranded utility cost bonds in the late 1990s. Their issuance then spread to other states including Illinois, Michigan, Montana, Pennsylvania, Massachusetts, New Jersey, Connecticut, New Hampshire, Texas, and Maryland, in conjunction with the deregulation of the power industry in those states.

Figure 2 illustrates the volume of stranded cost bonds as well as the recent new cost recovery bonds issued as of September 30, 2008. The total issuance in 1997 was entirely comprised of utilities in California. The surge in issuance in 1999 includes utilities in Pennsylvania and Massachusetts. The 2001 surge in issuance was driven by new issuance volumes from Texas, Michigan, New Jersey and New Hampshire. The 2005 increase in volume was largely due to repeat transactions by previous issuers. (Note: the Appendix shows additional details of the issuances by year, state and servicer.)



The securitization mechanism for the new cost recovery bonds is literally copied from that of the stranded cost model, which is based on a “three-legged stool” or an “iron triangle” of prerequisites to securitization:



1. Special state legislation: The state legislature must pass laws authorizing the recovery of stranded costs through securitization. The special state law, sometimes called the financing act, authorizes the creation of a transition property right to collect future surcharges on customer's monthly electricity bills as means to pay back the stranded cost bonds. The law stipulates that the present property right to collect the surcharges be transferred to a bankruptcy remote special purpose entity via a true sale transaction. The SPE will act as the issuer for the bonds. The financing act also contains a non-impairment pledge, by which the state pledges not to impair the stranded cost property, namely, the right to collect the special surcharges until the bonds are paid in full.
2. Financing order: The state public service commission must issue an irrevocable financing order authorizing the utilities to impose and collect the special non-bypassable bond surcharges on the customer's monthly electric bill during the term of the bonds.
3. The true-up mechanism: The surcharges collected to pay the debt service on the bonds must be trued up routinely (at least annually) and non-routinely (if the variance is more than 10%) so as to pay off the bonds at the final maturity date.

KEY CONSIDERATIONS FOR RATING NEW COST RECOVERY BONDS

Political/regulatory risk

Similar to the traditional stranded cost bonds, political/regulatory risk, i.e., the underpinning legislation is repealed or changed unfavorably to the bondholders, remains the key focus of our analysis for the new cost recovery bonds. That is because the credit enhancement to the bonds mainly consists of the statutory protection provided by the financing act, the financing order and the true-up mechanism stipulated in the financing order.

Political/regulatory risk is mitigated by the following factors:

State pledge

The state pledge stipulated in the financing act and the financing order is guaranteed by federal and state constitutions. Any abrogation of the state pledge will subject the state to litigation by the bondholders.

Irrevocability

The financing order is irrevocable once it is issued. Normally there is an appeal period for the financing order by affected parties. If there is no appeal or objection after the expiration of the appeal period, the financing order will become final and irrevocable and the surcharges authorized by the financing order will become irrevocable.

True-sale

The state legislation and the financing order characterize the sale of the securitized asset between the utility and the issuer SPE as a true sale and stipulate that the tariffs be imposed and collected regardless of the credit strength of the asset's servicer (the utility) or the status of the project financed. As a result, the bonds are completely insulated from the bankruptcy risk of the servicer as well as from the underlying projects (such as construction of scrubbers in the case of environmental control bonds or restoration of service and repair of damaged facilities in the case of storm recovery bonds).

Payment risk

Payment risk refers to the risk that cash collections are insufficient to pay the interest on time and principal at the legal final maturity date. Payment risk is mitigated by the following considerations:

Non-bypassability

The financing act and financing order stipulate that the securitization tariffs are non-bypassable. Non-bypassability means that any current as well as future customers in the service territory of the utility will have to pay the surcharges or tariffs as long as they utilize the transmission or distribution network of the utility. The tariffs will continue to be charged to the customers as long as the securitization bonds are still outstanding regardless who actually does the servicing or collection of the charges.

True-up

Routine (at least annual) and non-routine true-up adjustments to the securitization tariffs must be made in order to pay the debt service on the securitization bonds. These tariff adjustments are almost automatic as the financing order stipulates that the state public service commission must approve such rate adjustments within a fixed period of time, say, fifteen days, absent of mathematical error in calculating the rate adjustment.

Tail period

The financing order usually contains a maximum period over which the surcharges or tariffs can be levied on the customers. The securitization bonds must be paid off over the period authorized by the financing order as the securitization tariff cannot be imposed after the expiration of the fixed period stipulated in the financing order. In order to mitigate the risk that there is not sufficient cashflow to pay off the bonds at the final maturity date, the bonds are structured with an expected maturity date which is earlier than the legal final maturity date to create a tail period between the expected maturity date and the legal final maturity date. The tail period is normally one to two years. If the bond is not paid off by the expected maturity date, then additional and more frequent adjustments or true-ups can be made to insure the bonds are paid off by the legal final maturity date.

Hedge arrangements

The supermajority of cost recovery bonds are fixed rate bonds with only a few deals having floating rate tranches. If floating rate bonds are issued, appropriate hedging agreements need to be in place and those hedging agreements must conform to the Moody's framework guiding hedging agreements¹.

Other risks

Certain idiosyncratic risks such as completion risk of scrubbers and hurricane risk are also considered. The completion risk of the environmental projects is completely insulated from the bondholders. Certain event risks, specifically the risk that a utility's service area and infrastructure is irreparably damaged by a storm or other catastrophic event, is also examined, and believed to be relatively low due to the essential nature of the electricity and other services provided and the critical role that a utility's infrastructure plays in providing these services.

PERFORMANCE

Stranded cost and other cost recovery securitizations have survived problems with electric utility deregulation, the voluntary bankruptcy filings of Pacific Gas and Electric Company (one of the largest investor-owned utilities in the country) and Montana Power Company (fully owned subsidiary of Northwestern Energy), voter backlash in California, and blackouts on the East and West coasts.

The turmoil in the real estate market following the downturn in the housing sector in late 2006 has also not negatively impacted the performance of these bonds. First, people generally have to be current on their utility bills in order to avoid a disconnection or cut-off of electricity. Second, there are often deposit requirements for less credit worthy customers. Third, the special surcharges which back the bonds can be adjusted periodically to accommodate any cash short falls due to losses.

SUMMARY CONCLUSIONS AND PROSPECTS

Environmental control bonds and storm recovery bonds are innovations based on the stranded cost model for cost recovery bonds. The successful emergence of these bonds has significant implications. Utilities may face a bevy of new capital costs, given the growing concern over global warming and the potential for new environmental legislation regarding carbon emissions. Utilities will have to find ways to finance them.

¹ See ["Framework for De-Linking Hedge Counterparty Risks from Global Structured Finance Cashflow Transactions: Moody's Methodology"](#), May 10, 2007

(see the insert below for information on certain utilities which may consider securitization as an option for the recovery of estimated storm restoration costs). In addition, other capital expenditures of utilities, such as the upfront costs for the installation of “smart meters”, as well as certain renewable energy development costs, energy conservation costs, or energy efficiency program costs, could also be potential candidates for securitization utilizing the same techniques.

Utilities Considering New Storm Cost Recovery Bonds Following 2008 Hurricanes²

Following two relatively quiet hurricane seasons along the Gulf Coast region in 2006 and 2007, the 2008 hurricane season proved to be nearly as severe as the catastrophic 2005 season for several investor owned utilities in the area. On September 1, 2008, Hurricane Gustav made landfall along the Louisiana coast west of New Orleans and less than two weeks later, on September 13, 2008, Hurricane Ike made landfall in Galveston, Texas. Hurricane Gustav caused substantial damage to the infrastructure of several of the utility subsidiaries of New Orleans-based Entergy Corporation, with the most damage sustained by subsidiaries Entergy Gulf States Louisiana and Entergy Louisiana. Hurricane Ike severely affected a number of utilities in the state of Texas, including another Entergy subsidiary, Entergy Texas, as well as Centerpoint Energy Houston, a subsidiary of Houston-based CenterPoint Energy Houston Electric, LLC.

All four of the affected utilities have indicated that they are considering securitization as an option for the recovery of estimated storm restoration costs. Although other utilities in the region also incurred costs from these two storms, the magnitude of their costs are generally not substantial enough for them to consider securitization. Storm restoration cost estimates for the four most severely affected utilities are shown on the following table:

Utility	2008 Restoration Cost Estimates
CenterPoint Houston	\$650 to \$750 million
Entergy Texas	\$435 to \$510 million
Entergy Gulf States Louisiana	\$275 to \$325 million
Entergy Louisiana	\$240 to \$285 million

CenterPoint Houston, which incurred the largest dollar amount of storm restoration costs, has indicated that it expects to obtain recovery of these costs through the issuance of non-recourse securitization bonds similar to the storm restoration bonds issued by another Texas utility, Entergy Gulf States, following Hurricane Rita in 2005 (Entergy Gulf States Reconstruction Funding I, LLC Senior Secured Transition Bonds, Series A). A securitization issuance by CenterPoint Houston would require enabling legislation by the Texas Legislature in the session which begins in January 2009. If such legislation is approved, CenterPoint Houston would be able to recover those storm restoration costs approved by the Public Utilities Commission of Texas from such bond proceeds.

Entergy has also indicated that it is considering additional securitizations in both Louisiana and Texas as a mechanism to recover its 2008 storm restoration costs. Following the 2005 Hurricanes Katrina and Rita, Entergy obtained legislative and regulatory approval to do securitizations in both states and was able to complete three storm cost recovery bond issues totaling nearly \$1.3 billion earlier this year. These included the aforementioned Entergy Gulf States securitization in Texas, as well as storm cost recovery issuances for Entergy Louisiana (Louisiana Public Facilities Authority – System Restoration Bonds, Series 2008) and for Entergy Gulf States Louisiana (Louisiana Public Facilities Authority – System Restoration Bonds, Series 2008).

² The insert is contributed by Michael Haggarty from the Power/Utilities ratings team of the Global Public, Project & Infrastructure Finance Group.

RELATED RESEARCH

- [Stranded Costs: A Resilient Asset Class](#), January 3, 2005
- [Smoke, Mirrors & Stranded Costs](#), October 11, 1999
- [Stranded Utility Costs Update: Factoring Injunctive Relief into the Ratings Process](#), November 6, 1998
- [California Proposition 9 – Lights Out for the Stranded Utility Costs ABS Markets?](#) October 16, 1998
- [Stranded Utility Costs: Legislation Jolts the ABS Markets](#), February 28, 1997

APPENDIX

1. List of all cost recovery bonds rated by Moody's

Deal Name	Servicer	Closing Date	Issuance Amount (\$)
1 PG&E Funding LLC	PG&E	08-Dec-97	2,901,000,000
2 SCE Funding LLC, Series 1997-1	Southern California Edison Company	11-Dec-97	2,463,000,000
3 SDG&E Funding LLC Notes, Series 1997-1	San Diego Gas & Electric Company	16-Dec-97	658,000,000
4 ComEd Transitional Funding Trust, Series 1998	Com Edison	16-Dec-98	3,400,000,000
5 Illinois Power Special Trust, Series 1998-1	Illinois Power	22-Dec-98	864,000,000
6 MPC Natural Gas Funding Trust	Northwestern Energy	22-Dec-98	62,700,000
7 PECO Energy Transition Trust, Series 1999-A	PECO Energy	25-Mar-99	4,000,000,000
8 SPPC Funding LLC, Series 1999-1	Sierra Pacific Power	09-Apr-99	24,000,000
9 BEC Funding LLC	NSTAR Electric	29-Jul-99	725,000,000
10 PP&L Transition Bond Company LLC, Series 1999-1	PP&L	10-Aug-99	2,420,000,000
11 West Penn Funding LLC, Series 1999-A	West Penn	16-Nov-99	600,000,000
12 PECO Energy Transition Trust, Series 2000-A	PECO Energy	02-May-00	1,000,000,000
13 PSNH Funding LLC 2, Series 2002-1	PSNH	30-Jan-01	50,000,000
14 PSEG Transition Funding LLC, Series 2001-1	PSEG	31-Jan-01	2,525,000,000
15 PECO Energy Transition Trust, Series 2001-A	PECO Energy	01-Mar-01	805,460,000
16 The Detroit Edison Securitization Funding LLC, Series 2001-1	Detroit Edison	09-Mar-01	1,749,999,980
17 Connecticut RRB Special Purpose Trust CL&P-1	Connecticut Light & Power	30-Mar-01	1,438,400,000
18 PSNH Funding LLC, Series 2001-1	PSNH	25-Apr-01	525,000,000
19 Massachusetts RRB Special Purpose Trust WMECO-1	Western Massachusetts Electric	17-May-01	155,000,000
20 Reliant Energy Transition Bond Company LLC, Series 2001-1	CenterPoint Energy Houston Electric	24-Oct-01	748,897,000
21 Consumers Funding LLC, Series 2001-1	Consumers Energy	08-Nov-01	468,592,000
22 CPL Transition Funding LLC, Series 2002-1	AEP Texas Central	07-Feb-02	797,334,897
23 JCP&L Transition Funding LLC, Series 2002-A	JCP&L	11-Jun-02	320,000,000
24 Atlantic City Electric Transition Funding LLC, Series 2002-1	Atlantic City Electric	19-Dec-02	440,000,000
25 Oncor Electric Delivery Transition Bond Company, LLC Series 2003-1	Oncor Electric Delivery Company	21-Aug-03	500,000,000
26 Atlantic City Electric Transition Funding LLC, Series 2003-1	Atlantic City Electric	23-Dec-03	152,000,000
27 TXU Electric Delivery Transition Bond Company LLC, Series 2004-1	TXU Electric Delivery Company	07-Jun-04	789,777,000
28 Connecticut (State of) Special Obligation Rate Reduction Bonds - 2004 Series A	Connecticut Light & Power	23-Jun-04	205,345,000
29 Rockland Electric Company Transition Funding LLC, Series 2004-1	Orange and Rockland Utilities	30-Jul-04	46,300,000
30 PG&E Energy Recovery Funding LLC, Series 2005-1	PG&E	31-Jan-05	1,887,864,000
31 Massachusetts RRB Special Purpose Trust 2005-1	NSTAR Electric	14-Feb-05	674,500,000
32 PSE&G Transition Funding II LLC, Series 2005-1	PSEG	23-Sep-05	102,700,000
33 WPP Funding, LLC, Series 2005-A	West Penn	27-Sep-05	115,000,000
34 PG&E Energy Recovery Funding LLC, Series 2005-2	PG&E	21-Nov-05	844,461,000
35 CenterPoint Energy Transition Bond Company II, LLC Series A	CenterPoint Energy	30-Dec-05	1,851,000,000
36 JCP&L Transition Funding II LLC, Series 2006-A	JCP&L	10-Aug-06	182,400,000
37 AEP Texas Central Transition Funding II LLC, Series A	AEP Texas Central	11-Oct-06	1,302,700,000
38 MP Environmental Funding LLC - Senior Secured Sinking Fund Environmental Control Bonds, Series A	Montgehele Power	11-Apr-07	344,475,000
39 PE Environmental Funding LLC - Senior Secured Sinking Fund Environmental Control Bonds, Series A	Potomac Edison	11-Apr-07	114,825,000
40 FPL Recovery Funding LLC, 2007 Series A	Florida Power and Light	22-May-07	652,000,000
41 Entergy Gulf States Reconstruction Funding I, LLC Senior Secured Transition Bonds, Series A	Entergy Texas	29-Jun-07	329,500,000
42 RSB BondCo LLC	Baltimore Gas and Electric	29-Jun-07	623,200,000
43 CenterPoint Energy Transition Bond Company III, LLC	CenterPoint Energy	12-Feb-08	488,472,000
44 Cleco Katrina/Rita Hurricane Recovery Funding LLC	CLECO	06-Mar-08	180,600,000
45 Louisiana Public Facilities Authority - System Restoration Bonds (Louisiana Utilities Restoration Corp Proj/ELL), Series 2008	Entergy Louisiana	29-Jul-08	687,700,000
46 Louisiana Public Facilities Authority - System Restoration Bonds (Louisiana Utilities Restoration Corp Project/EGSL), Series 2008	Entergy Gulf States Louisiana	26-Aug-08	278,400,000

2. Cost recovery bond issuance by year (this and the following table information is based on deals rated by Moody's)

Closing Year	Issuance (\$)
1997	6,022,000,000
1998	4,326,700,000
1999	7,769,000,000
2000	1,000,000,000
2001	8,466,348,980
2002	1,557,334,897
2003	652,000,000
2004	1,041,422,000
2005	5,475,525,000
2006	1,485,100,000
2007	2,064,000,000
2008	1,635,172,000
Grand Total	41,494,602,877

3. Cost of recovery bond issuance by states

State	Issuance (\$)
CA	8,778,325,000
CT	1,643,745,000
FL	652,000,000
IL	4,264,000,000
LA	1,146,700,000
MA	1,554,500,000
MD	623,200,000
MI	2,218,591,980
MT	62,700,000
NH	575,000,000
NJ	3,768,400,000
PA	8,940,460,000
TX	6,807,680,897
WV	459,300,000
Grand Total	41,494,602,877

4. Cost recovery bond issuance by utilities/servicer

Servicer	Issuance (\$)
AEP Texas Central	2,100,034,897
Atlantic City Electric	592,000,000
Baltimore Gas and Electric	623,200,000
CenterPoint Energy	2,339,472,000
CenterPoint Energy Houston Electric	748,897,000
CLECO	180,600,000
Com Edison	3,400,000,000
Connecticut Light & Power	1,643,745,000
Consumers Energy	468,592,000
Detroit Edison	1,749,999,980
Entergy Gulf States Louisiana	278,400,000
Entergy Louisiana	687,700,000
Entergy Texas	329,500,000
Florida Power and Light	652,000,000
Illinois Power	864,000,000
JCP&L	502,400,000
Montgehela Power	344,475,000
Northwestern Energy	62,700,000
NSTAR Electric	1,399,500,000
Oncor Electric Delivery Company	500,000,000
Orange and Rockland Utilities	46,300,000
PECO Energy	5,805,460,000
PG&E	5,633,325,000
Potomac Edison	114,825,000
PP&L	2,420,000,000
PSEG	2,627,700,000
PSNH	575,000,000
San Diego Gas & Electric Company	658,000,000
Sierra Pacific Power	24,000,000
Southern California Edison Company	2,463,000,000
TXU Electric Delivery Company	789,777,000
West Penn	715,000,000
Western Massachusetts Electric	155,000,000
Grand Total	41,494,602,877

5. Cost recovery bond issuance by year, state and utilities/servicer

Closing Year	State	Servicer	Issuance (\$)
1997	CA	PG&E	2,901,000,000
		San Diego Gas & Electric Company	658,000,000
		Southern California Edison Company	2,463,000,000
	CA Total		6,022,000,000
1997 Total			6,022,000,000
1998	IL	Com Edison	3,400,000,000
		Illinois Power	864,000,000
	IL Total		4,264,000,000
	MT	Northwestern Energy	62,700,000
MT Total		62,700,000	
1998 Total			4,326,700,000
1999	CA	Sierra Pacific Power	24,000,000
	CA Total		24,000,000
	MA	NSTAR Electric	725,000,000
	MA Total		725,000,000
	PA	PECO Energy	4,000,000,000
		PP&L	2,420,000,000
West Penn		600,000,000	
PA Total		7,020,000,000	
1999 Total			7,769,000,000
2000	PA	PECO Energy	1,000,000,000
	PA Total		1,000,000,000
2000 Total			1,000,000,000
2001	CT	Connecticut Light & Power	1,438,400,000
	CT Total		1,438,400,000
	MA	Western Massachusetts Electric	155,000,000
	MA Total		155,000,000
	MI	Consumers Energy	468,592,000
		Detroit Edison	1,749,999,980
	MI Total		2,218,591,980
	NH	PSNH	575,000,000
	NH Total		575,000,000
	NJ	PSEG	2,525,000,000
	NJ Total		2,525,000,000
	PA	PECO Energy	805,460,000
	PA Total		805,460,000
TX	CenterPoint Energy Houston Electric	748,897,000	
TX Total		748,897,000	
2001 Total			8,466,348,980
2002	NJ	Atlantic City Electric	440,000,000
		JCP&L	320,000,000
	NJ Total		760,000,000
	TX	AEP Texas Central	797,334,897
TX Total		797,334,897	
2002 Total			1,557,334,897

2003	NJ	Atlantic City Electric	152,000,000
	NJ Total		152,000,000
	TX	Oncor Electric Delivery Company	500,000,000
	TX Total		500,000,000
2003 Total			652,000,000
2004	CT	Connecticut Light & Power	205,345,000
	CT Total		205,345,000
	NJ	Orange and Rockland Utilities	46,300,000
	NJ Total		46,300,000
	TX	TXU Electric Delivery Company	789,777,000
	TX Total		789,777,000
2004 Total			1,041,422,000
2005	CA	PG&E	2,732,325,000
	CA Total		2,732,325,000
	MA	NSTAR Electric	674,500,000
	MA Total		674,500,000
	NJ	PSEG	102,700,000
	NJ Total		102,700,000
	PA	West Penn	115,000,000
	PA Total		115,000,000
	TX	CenterPoint Energy	1,851,000,000
	TX Total		1,851,000,000
2005 Total			5,475,525,000
2006	NJ	JCP&L	182,400,000
	NJ Total		182,400,000
	TX	AEP Texas Central	1,302,700,000
	TX Total		1,302,700,000
2006 Total			1,485,100,000
2007	FL	Florida Power and Light	652,000,000
	FL Total		652,000,000
	MD	Baltimore Gas and Electric	623,200,000
	MD Total		623,200,000
	TX	Entergy Texas	329,500,000
	TX Total		329,500,000
	WV	Montgehela Power Potomac Edison	344,475,000 114,825,000
	WV Total		459,300,000
2007 Total			2,064,000,000
2008	LA	CLECO	180,600,000
		Entergy Gulf States Louisiana	278,400,000
		Entergy Louisiana	687,700,000
	LA Total		1,146,700,000
	TX	CenterPoint Energy	488,472,000
TX Total		488,472,000	
2008 Total			1,635,172,000
Grand Total			41,494,602,877

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*The following model is for illustrative purposes only and based on calculations used by Commissions in previous utility securitizations.
Estimates used in calculations will vary with market conditions and are conservative for purposes of illustration.*



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Assumptions for Illustrative Comparison of Securitization to Conventional Financing

	Amount	
	(%)	(\$ millions)
Project Capitalization		1,000
Conventional capitalization		
Common equity	50.0%	
Short term debt	5.0%	
Long term debt	45.0%	
Cost of Conventional Financing		
Common equity	12.0%	
Short-term debt	5.0%	
Long-term debt	7.7% ⁽¹⁾	
Cost of Securitization debt	7.0% ⁽¹⁾	
Income tax rate		
Federal	35.0%	
State	5.5%	
Composite	38.6%	
Revenue related tax rate (franchise or gross receipts taxes)	1.0%	
Financing term ⁽²⁾	12	years

⁽¹⁾ Securitization bonds would be rated Aaa/AAA, while it is assumed the utility rating is Baa/BBB. The differential in nominal yield will vary with market conditions.

⁽²⁾ Utility securitizations can and have been done with terms (final maturities) of up to 20 years. See, for example, Allegheny Energy totaling \$459 million in April, 2007 with final maturity in July, 2027.

Illustrative Savings from Securitization

Present Value Revenue Requirement Savings On
\$1 billion Financing
(\$ Millions)

	Revenue Requirements	
	Nominal	Present Value
Traditional Financing - Cumulative total	\$1,895	\$1,326
<i>less</i> Securitization Financing	1,470	1,010
<i>less</i> Incremental Securitization Transaction Costs (2.5%) ⁽¹⁾	25	25
Savings	401	291
Savings as % of Principal	40%	29%
Savings as % of Traditional Financing Revenue Requirements	21%	22%

⁽¹⁾ In practice, incremental transaction costs are both upfront and on-going. For simplicity, here they are represented as a single upfront cost.

Marginal Cost of Capital

Traditional Cost of Capital

Source of Capital	Capitalization	Capital Structure	Annualized Cost	Weighted Average Cost of Capital (WACC)
Common Equity	500	50.00%	12.0% ⁽¹⁾	6.00% ⁽²⁾
Short-Term Debt	50	5.00%	5.0%	0.25%
Long-Term Debt	450	45.00%	7.7%	3.47%
Total Capitalization	1,000	100.00%		9.72%

Securitization

Securitized Debt	1,000	100%	7.0%	7.00%
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⁽¹⁾ After tax cost of equity

⁽²⁾ Weighted Cost of Equity (WCE)

Traditional Financing Calculation of Revenue Requirements (Cost of Service)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
							Revenue Requirement (Cost of Service)	
Year	Rate Base ⁽¹⁾	Return	Return on Equity	Income Taxes	Annual Amortization	Revenue Related Taxes	Nominal	Present Value
		(a) * WACC	(a) * WCE	(c) * Tax Factor ⁽²⁾			(a)+(d)+(e)+(f)	PV of (g) ⁽³⁾
2009	1000	97	60	38	83	2	220	206
2010	917	89	55	35	83	2	209	183
2011	833	81	50	31	83	2	198	161
2012	750	73	45	28	83	2	186	142
2013	667	65	40	25	83	2	175	125
2014	583	57	35	22	83	2	164	109
2015	500	49	30	19	83	2	152	95
2016	417	40	25	16	83	1	141	82
2017	333	32	20	13	83	1	130	70
2018	250	24	15	9	83	1	118	60
2019	167	16	10	6	83	1	107	51
2020	83	8	5	3	83	1	96	42
2021	0	0	0	0	0	0	0	0
	6,500	631	390	245	1,000	19	1,895	1,326

⁽¹⁾ For simplicity, we have ignored effect of deferred taxes and other adjustments to rate base

⁽²⁾ Tax factor = $\frac{\text{Composite tax rate}}{1 - \text{Composite tax rate}}$

⁽³⁾ Discounted at the securitization cost rate

**Securitization Financing
Calculation of Revenue Requirements
(Cost of Service)**

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
							Revenue Requirement (Cost of Service)	
Year	Unamortized Principal	Interest	Return on Equity	Income Taxes	Annual Principal Payments	Revenue Related Taxes	Nominal	Present Value
		(a) * WACC					(a)+(d)+(e)+(f)	PV of (g)
2009	1,000	70	0	0	83	2	155	145
2010	917	64	0	0	83	1	149	130
2011	833	58	0	0	83	1	143	117
2012	750	53	0	0	83	1	137	105
2013	667	47	0	0	83	1	131	94
2014	583	41	0	0	83	1	125	84
2015	500	35	0	0	83	1	120	74
2016	417	29	0	0	83	1	114	66
2017	333	23	0	0	83	1	108	59
2018	250	18	0	0	83	1	102	52
2019	167	12	0	0	83	1	96	46
2020	83	6	0	0	83	1	90	40
2021	0	0	0	0	0	0	0	0
	6,500	455	0	0	1,000	15	1,470	1,010

(1) Securitization revenue requirements can be levelized if so desired

(2) Discounted at the securitization cost rate

Sources of Securitization Savings

	Amount (\$ millions)
Eliminate Income Tax Expense	245
Debt is less expensive than equity	149
Securitization debt is less expensive than corporate debt	28
Revenue Related Taxes are less	<u>4</u>
Sub-total	426
less Incremental securitization transaction costs	<u>(25)</u>
Net Nominal Savings	401