We, the members of the IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to the highest ethical and professional conduct and agree:

1. to accept responsibility in making engineering decisions consistent with the safety, health, and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;

2. to avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;

3. to be honest and realistic in stating claims or estimates based on available data;

4. to reject bribery in all its forms;

5. to improve the understanding of technology, its appropriate application, and potential consequences;

6. to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;

7. to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;

8. to treat fairly all persons regardless of such factors as race, religion, gender, disability, age, or national origin;

9. to avoid injuring others, their property, reputation, or employment by false or malicious action;

10. to assist colleagues and co-workers in their professional development and to support them in following this code of ethics.

Approved by the IEEE Board of Directors, August 1990
Enron's Former Chief Executive Is Indicted

A Widening Net

With the indictment of Jeffrey K. Skilling, the former president of Enron, most of the company's former top executives have now been indicted or pleaded guilty to various financial crimes. A number of lower-level executives have also been swept up in the investigation.

<table>
<thead>
<tr>
<th>CORPORATE EXECUTIVES</th>
<th>FORMER POSITION</th>
<th>STATUS</th>
<th>ACCUSATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeffrey K. Skilling</td>
<td>Chief executive</td>
<td>Indicted</td>
<td>Conspired to manipulate Enron's financial statements</td>
</tr>
<tr>
<td>Richard A. Causey</td>
<td>Chief accounting officer</td>
<td>Indicted</td>
<td>Conspired with Mr. Fastow to manipulate Enron's financial statements</td>
</tr>
<tr>
<td>Andrew S. Fastow</td>
<td>Chief financial officer</td>
<td>Pleased guilty</td>
<td>Created partnerships to hide Enron's debt and enriched himself in deals between the partnerships and Enron</td>
</tr>
<tr>
<td>Lea Fastow</td>
<td>Assistant treasurer</td>
<td>Pleased guilty</td>
<td>Aided her husband in hiding kickbacks related to the partnerships</td>
</tr>
<tr>
<td>Ben F. Gilsan Jr.</td>
<td>Treasurer</td>
<td>Pleased guilty</td>
<td>Manipulated Enron's financial statements to aid Mr. Fastow in the conspiracy</td>
</tr>
<tr>
<td>David W. Delainey</td>
<td>Chief executive, energy divisions</td>
<td>Pleased guilty</td>
<td>Sold stock when he knew Enron's financial statements were false</td>
</tr>
<tr>
<td>Michael J. Kopper</td>
<td>Finance executive</td>
<td>Pleased guilty</td>
<td>Aided Mr. Fastow in his conspiracy</td>
</tr>
<tr>
<td>Lawrence M. Lawyer</td>
<td>Finance executive</td>
<td>Pleased guilty</td>
<td>Evaded taxes by failing to report income from one of the Fastow partnerships</td>
</tr>
<tr>
<td>Dan Boyle</td>
<td>Finance executive</td>
<td>Indicted</td>
<td>Helped disguise a loan by Merrill Lynch as a sale of power barges in Nigeria</td>
</tr>
<tr>
<td>Sheila K. Kahanek</td>
<td>Accountant</td>
<td>Indicted</td>
<td>Helped disguise the Nigenan barge deal</td>
</tr>
</tbody>
</table>

EXECUTIVES AT ENRON'S BROADBAND DIVISION

| Joseph M. Hirko       | Chief executive       | Indicted  | Intentionally misled investors about the division's prospects and performance to drive up Enron's stock price and then sold stock knowing that its value was inflated. All have been charged with insider trading, fraud and conspiracy |
| Kenneth D. Rice       | Chief executive       | Indicted  |                                                                                 |
| Kevin A. Howard       | Chief financial officer | Indicted  |                                                                                 |
| Kevin P. Hannon       | Chief operating officer | Indicted  |                                                                                 |
| Rex Shelby            | Senior vice president | Indicted  |                                                                                 |
| F. Scott Yeager       | Senior vice president | Indicted  |                                                                                 |
| Michael W. Krautz     | Accounting director   | Indicted  |                                                                                 |

ENERGY TRADERS

| Timothy N. Belden     | Managing director     | Pleading guilty | Manipulated the California energy market during the energy crisis in 2000 and 2001 to drive up prices and reap profits for Enron |
| Jeffrey S. Richter    | Senior trader          | Pleading guilty |                                                                                 |
| John M. Forney        | Senior trader          | Indicted      |                                                                                 |
LESSONS TO LEARN

- EXECUTIVES SOLD STOCK WHILE EMPLOYEES WERE BLOCKED

- EXECUTIVES PROFITED FROM LUCRATIVE SIDE DEALS WITH THE COMPANY

- BOARD OF DIRECTORS SUSPENDED CORPORATE ETHICS CODE TO PERMIT SIDE DEALS

- AUDITORS SHREDDED RECORDS THAT FEDERAL INVESTIGATORS WERE SEEKING

- INVESTMENT BANKS WERE SELLING BONDS WHILE KNOWING OF FINANCIAL INSTABILITY
Send them to jail
Schemers and scams

1920: The Ponzi scheme
Charles Ponzi planned to arbitrage postal coupons—buying them from Spain and selling them to the U.S. Postal Service at a profit. To raise capital, he outlandishly promised investors a 50% return in 90 days. They naturally swarmed in, and he paid the first with cash collected from those coming later. He was imprisoned for defrauding 40,000 people of $15 million.

1930: Ivar Krueger, the Match King
Leading companies that made two-thirds of the world's matches, Krueger ruled—until the Depression. To keep going, he employed 400 off-the-books vehicles that only he understood, scammed his bankers, and forged signatures. His empire collapsed when he had a stroke.

1983: Marc Rich
Fraudulent oil trades in 1980–81 netted Rich and his partner, Pincus Green, $1.05 million, which they moved to offshore subsidiaries. Expecting to be indicted by U.S. Attorney Rudy Giuliani for evading taxes, they fled to Switzerland, where tax evasion is not an extraditable crime. Clinton pardoned Rich in 2001.

1985: Nick Leeson and Barings Bank
A 28-year-old derivatives trader based in Singapore, Leeson brought down 233-year-old Barings by betting Japanese stocks would rise. He hid his losses—$1.4 billion—for a while but eventually served more than three years in jail.

1998: Waste Management
Fighting to keep its reputation as a fast grower, the company engaged in aggressive accounting for years and then tried straight-out books cooking. In 1998 it took a massive charge, restating years of earnings.

1998: Al Duniap
He became famous as "Chainsaw Al" by firing people. But he was then axed at Sunbeam for illicitity manufacturing earnings. He loved overstating revenues—booking sales, for example, on grills neither paid for nor shipped.

1989: Charles Keating and the collapse of Lincoln S&L
Keating was convicted of fraudulently marketing junk bonds and making sham deals to manufacture profits. Sentenced to 12 1/2 years, he served less than five. Cost to taxpayers: $3.4 billion, a sum making this the most expensive S&L failure.

1999: Martin Frankel
A financier who siphoned off at least $200 million from a series of insurance companies he controlled, Frankel was arrested in Germany four months after going on the lam. Now jailed in Rhode Island—no bail for this guy—he awaits trial on charges of fraud and conspiracy.
Enron

Tools From Wall Street's Workbench . . .

Structured finance is used by companies to raise cash and reduce risk. In the form it most frequently takes, structured finance allows a company to sell an asset to a special-purpose entity created to buy it, thereby spreading the risks associated with the asset among the investors who finance the entity.

1. A company sells financial assets to an entity created by the company to buy them.
2. The entity is financed by investors who buy debt securities issued by the entity and backed by the assets bought from the company.
...Built the Labyrinth That Was Enron

Using similar structured finance tools, Enron created elaborate arrangements for selling assets and raising cash. Here is one example, the Marlin Water Trust I, set up to purchase Azurix, a water and waste treatment company, from Enron.

1. Enron lent stock to a wholly owned trust.
2. The stock was used as collateral for a partnership called Marlin Water Trust I.
3. Enron created a subsidiary, called Bristol Water Trust, to manage Azurix, the water company, and later borrowed cash from Bristol.
4. Bristol pledged its future debt payments from Enron to Marlin.
5. Marlin raised money from investors.
6. Pledging its cash flow from Bristol, Marlin issued debt.
7. Enron, through Bristol, swapped Azurix for 33 percent of Atlantic Water Trust.
8. With the money it received from investors, Marlin I bought 67 percent of the Atlantic Water Trust — the new owner of Azurix.
9. Some of the money invested in Atlantic by Marlin flowed through Bristol to Enron as a loan.
Murky Waters: A Primer on Enron Partnerships

As Details Surface, They Appear Central In Firm's Collapse

By John R. Emshwiller and Rebecca Smith

Staff Reporters of The Wall Street Journal

With names such as Marlin and Rawhide, Braveheart and Raptor, they sound like fancy bar drinks or maybe top-secret military missions.

They are, in fact, a few of the myriad entities that Enron Corp. helped set up over the past decade and that now find themselves at the heart of one of the biggest corporate scandals in history. Government investigators are still sifting through the complex financial structures of these partnerships, limited-liability companies and other affiliates—domestic and foreign—trying to determine what, if any, accounting rules and laws may have been violated.

At this stage, many details remain murky. But one thing is certain: The partnerships—which Enron often told investors little or nothing about—hid hundreds of millions of dollars of losses and debt from public view. As information about the partnerships began surfacing, they were a major factor in the company's filing for bankruptcy-court protection in December.

The Art of the Enron Deal

Enron used outside partnerships to monetize assets and move debt off its balance sheet. But the company at times was deeply involved in funding the partnerships. Here is how such transactions in recent years were typically structured:

1. Enron transfers asset to special-purpose entity, or partnership, to move the asset and debt off its balance sheet and to recognize a gain from the transfer.

2. Outside investor injects at least 3% of partnership's capital. Under Financial Accounting Standards Board rules, a 3% outside investment allows Enron not to classify the partnership as a subsidiary.

3. In some cases it appears Enron helped provide some or all of the 3% of capital injected by the outside investor.

4. Banks typically loan up to 97% of capital needed by the partnership. The partnership is expected to repay the loan from cash generated by the Enron assets it acquires or through the sale of assets upon liquidation of the partnership.

5. Enron guarantees bank loan, in some cases with Enron shares or a pledge to make up any shortfall. As the company's fortunes declined last year, these guarantees were sometimes in the form of cash.
Enron: The Tale Less Trumpeted

The blame falls not just on faulty bookkeeping and inflated expectations, but also on a fashionable but questionable model of stewardship.
ENRON'S MANY STRANDS: An Auditor's Troubles

Andersen: A Firm That Grew, Then Faltered

Building the Business

1913 Andersen, DeLany & Co. is formed in Chicago.

1940 Andersen establishes a centralized training program, the first of its kind.

1955 Andersen establishes its first foreign office, in Mexico City.

Cracks Appear

1989 Andersen forms a separate, lucrative consulting practice.

1992 Andersen pays more than $22 million to settle a lawsuit that it misrepresented the financial health of the American Continental Corporation and its subsidiaries, which included Lincoln Savings & Loan.

1998 Andersen pays $75 million to Waste Management shareholders after the company erases more than $1 billion from earnings for the years 1992-1996.

1998 Andersen pays $50 million to Colonial Realty investors, who lost $300 million when the company collapsed amid an accounting scandal in 1990.

1999 Baptist Foundation of Arizona, an Andersen client, files for bankruptcy amid allegations of fraud.

2000 Consulting practice splits off as an independent company called Accenture. As part of the agreement, it pays Andersen $1 billion.

1918 The firm is renamed Arthur Andersen & Co. and creates a new business of management information consulting.

1947 Arthur Andersen dies; firm almost breaks up, but is held together under a new managing partner, Leonard Spacek.

1988 Andersen pays the State of Ohio $5.5 million to cover taxpayers' losses on Home State Savings Bank, which failed amid allegations of fraudulent accounting.
Yesterday's federal indictment of Arthur Andersen for obstruction of justice could lead to the demise of one of the country's oldest and biggest accounting firms.

| APRIL 2001 | Andersen agrees to pay $110 million to shareholders of Sunbeam because of accounting misstatements. |
| OCT. 16   | Enron reduces shareholder equity by about $1 billion because of undisclosed liabilities on off-balance-sheet entities. |
| NOV. 8    | Andersen receive a subpoena from the S.E.C. |
| MAR. 1, 2002 | Andersen agrees to pay $217 million to settle lawsuits stemming from the failure of the Baptist Foundation, which plaintiffs say was a giant Ponzi scheme. |
| JUNE      | Andersen pays $7 million to settle a fraud complaint by the Securities and Exchange Commission for issuing false and misleading audit reports on Waste Management's annual financial statements from 1992 to 1996. |
| OCT. 22   | Enron says that the Securities and Exchange Commission has opened an inquiry into the company. |
| OCT. 23   | According to eyewitnesses, auditors in Andersen's Houston office begin shredding Enron-related documents. |
| YESTERDAY | Andersen is indicted. |
| NOV. 29   | The S.E.C. investigation is expanded to include Andersen. |

The New York Times