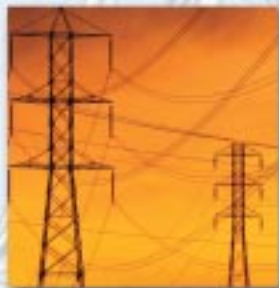




2003 Annual Report

Keeping The Lights On In Texas



Photos courtesy of Lower Colorado River Authority

Electricity is the lifeblood of modern society.

Plentiful, affordable power sustains us at all levels: from irrigating crops on the plains, to operating coastal refineries, to switching on a single light bulb so a mother can soothe her baby at night.

Everyone depends on this unique form of energy that can't be stored, but must be produced, transported, and delivered instantaneously each moment of the day.

The Electric Reliability Council of Texas, Inc., known as ERCOT, is the organization entrusted to keep electric power flowing in the Texas region. It's a sacred trust, really. Ensuring the reliability of the electric supply is serious business. Meeting that responsibility is the primary mission of ERCOT.

Members of ERCOT

Investor-owned utilities

Municipal-owned utilities

Electric cooperatives

Independent generators

Power marketers

Retail electric providers

River authorities

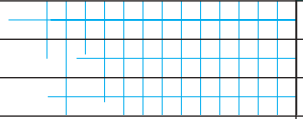
Retail consumers



THE ERCOT REGION

ERCOT keeps the lights on for approximately 75 percent of the geographic land area of Texas, or nearly 200,000 square miles. The ERCOT region is diverse, ranging from Loving County in west Texas (pop. 67) to Harris County in southeast Texas (pop. 3.5 million).





“ERCOT’s grid serves 7 million customers and is widely regarded as one of the most advanced and most trouble-free grids in the country.”

—*Houston Business Journal*, October 13, 2003

One of ten regional reliability councils in North America, ERCOT has evolved as an organization that manages one of the largest single control areas in the U.S. The region covers 75 percent of the geographic land area in the state and about 85 percent of the electric load. Each day, seven million retail customers depend on this grid to support the region’s energy demand.

ERCOT is regulated by the Public Utility Commission of Texas (PUCT) and is subject to oversight by the Texas Legislature. Because ERCOT operates a single control area located entirely within the state, it is the only region in the U.S. not subject to the authority of the Federal Energy Regulatory Commission (FERC).



Photo courtesy of Austin Energy

Building Foundations for the Texas Market



Standing: Mike Greene
Chairman of the Board

Seated: Tom Noel
President and CEO

Officers:
Maxine Buckles
Vice President and Chief Financial Officer

Ray Giuliani
Vice President and Chief of Market Operations

Sam Jones
Executive Vice President and Chief Operating Officer

Margaret Uhlig Pemberton
Vice President, General Counsel, and Corporate Secretary

Ken Shoquist
Vice President and Chief Information Officer

Someone once observed that ERCOT is really two businesses, “Keeping the lights on in Texas — and all the other things ERCOT does.” This report outlines the operational results for 2003, a successful year on both fronts.

It is helpful to see how far we’ve come. Decades ago ERCOT began as a small non-profit organization made up of utilities. Its purpose was to develop and maintain reliability standards, as well as coordinate inter-utility operations. Deregulation of the wholesale market brought significant changes to the organization in 1996. The ERCOT ISO (independent system operator) was formed, and regional reliability responsibilities were assigned to it. Then in 1999, Senate Bill 7 reinvented the electric service industry in the region. No longer just responsible for electric reliability, ERCOT was charged with developing structures and business processes to support the new competitive market.

The overall success of the changeover is a tribute to the parties involved. Forward thinking legislators who drafted the plans. Regulators and market participants who implemented them. And ERCOT professionals who thoughtfully and energetically performed their jobs behind-the-scenes.

The result three short years later? A restructured electric service industry is in place, which includes a vibrant wholesale market. Many customers now have a choice of electric providers. Together we created a new electric market that performs well.

2003 has been a foundational year for ERCOT’s leadership and staff. Senior executives were recruited to head market operations and information technology (IT) divisions. Managerial and line staffing was strengthened, especially in the areas of IT and security. Project management disciplines resulted in an increase of on-time delivery of projects to the market from 40 per cent to 90 per cent.

Even the board of directors embraced change. It streamlined the number of board members from 25 in December 2001 to 14 members by year-end 2003. Three independent directors with expertise in IT, finance, and risk management were recruited following a national search. The board continued its commitment to collaborative decision-making that considers the views of market participants.



System reliability was maintained during the year despite two severe weather events. A complex, system-wide state estimator capability was expanded, giving ERCOT operators a more real-time view of the status and condition of the grid. The Taylor control center integrated with Austin operations, and both sites successfully completed security overhauls.

It's been a full, challenging and rewarding year. ERCOT continues to invest in resources to enhance the market and meet its critical mission of grid reliability.



Mike Greene, Chairman of the Board



Tom Noel, President and CEO

ERCOT Board of Directors

MICHAEL S. GREENE — CHAIR
Oncor Electric Delivery Company
(Investor-Owned Utility)

ROBERT A. (BOB) MANNING — VICE CHAIR
H-E-B Grocery Company
(Commercial Consumer)

Board Members

MARK G. ARMENTROUT
(Unaffiliated Board Member)

DAVID C. BAGGETT
(Unaffiliated Board Member)

MIGUEL W. ESPINOSA
(Unaffiliated Board Member)

BARRY N. P. HUDDLESTON
Dynergy Power Corp.
(Independent Generator)

F. PAUL HUDSON
PUCT Chairman
(ex officio, non voting)

BOB A. KAHN
Austin Energy
(Municipal)

CLIFTON B. KARNEI
Brazos Electric Power Cooperative, Inc.
(Cooperative)

SUZI R. McCLELLAN
OPUC – Residential Consumer
(ex officio)

THOMAS E. NOEL
ERCOT President and CEO
(ex officio)

THOMAS J. PAYTON
Occidental Chemical Corp.
(Industrial Consumer)

DOROTHEA B. STOCKSTILL
Mirant Americas Energy Marketing
(Independent Power Marketer)

DAVID M. VEISEH
Utility Choice Electric
(Independent Retail Electric Provider)



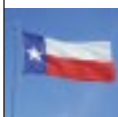
A Legacy of Consensus

In recent years, two extraordinary legislative directives restructured the electric industry in Texas. The wholesale sector was deregulated by state law in 1996, followed by an opening of the retail market to competition in 2002. Retail competition gave customers in many locations the right to choose their electric service provider, similar to the ability to choose telephone service. Municipal utilities and electric cooperatives retained the ability to decide when, and if, to opt-in to the program.

“Of all the factors contributing to success, the most fundamental was the spirit of cooperation among stakeholders.”

Such massive restructuring of an industry in a brief timeframe does not happen easily. ERCOT was charged with building the operating systems and procedures for the new open market. That it could handle the magnitude of the project, and in so brief a time period, is a tribute to its professional staff, as well as the expertise of consulting engineers recruited from across the globe.

Of all the factors contributing to success, the most fundamental was the spirit of cooperation among stakeholders. Electric providers, regulators, legislators, and ERCOT staff worked side-by-side to create the framework and market rules for the new industry paradigm. Despite sometimes competing interests and



1941

Texas Interconnected System (TIS) is founded to aid war effort.

1970

TIS establishes ERCOT to meet North American Electric Reliability Council (NERC) requirements; staffed by two retired employees from utilities.



1981

TIS transfers operating functions to ERCOT. ERCOT becomes the central operating coordinator for Texas.

1986

ERCOT opens its first office and hires four full-time employees.

1995

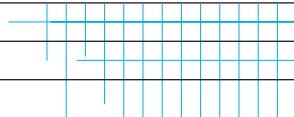
Texas Legislature votes to deregulate wholesale generation market.



1996

ERCOT becomes first Independent System Operator (ISO) in U.S.

Significant accomplishments in the history



disagreements, trust among the stakeholder parties enabled a most remarkable consensus and market evolution.

Perhaps it has something to do with the industry's history in Texas. This spirit of collaboration was first evidenced in the early 1940's when several utilities banded together in support of the war effort. Surplus power generated from the group was sent to smelting plants along the Gulf Coast.

Known as the Texas Interconnected System (TIS), its members recognized the reliability advantages of inter-connecting within the state. And the seeds of ERCOT were sown.



1999

Texas Legislature passes Senate Bill 7 to deregulate retail electric market.

1999–2001

Protocols for ERCOT are developed through significant stakeholder collaboration.

2000

ERCOT hires executive staff and expands to 50 employees.

2001

ERCOT manages single control area for power grid. A 45,000 square-foot state-of-the-art facility opens in Austin. Pilot Program switches first electric customer to different provider. ERCOT staff totals 240 employees; many are highly trained power system engineers and operators.

2002

ERCOT-launched electric restructuring allows individuals and corporations in most cities to choose power suppliers. An 85,000 square-foot control center opens in Taylor, Texas.

2003

Wholesale market redesign commences to create greater efficiencies. Staff reaches 380 employees. Record high demand of 59,996 megawatts (MW) of power in August. Board of directors reduced to 14, which includes three unaffiliated members.

of ERCOT

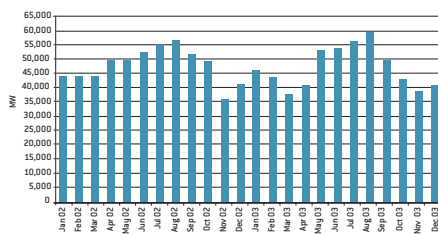
Grid Operations: Reliability First

The Northeast Blackout on August 14, 2003 heightened public awareness of the vulnerability of electric grids. ERCOT's core mission remains the same since its creation: to maintain the reliability of the electric grid in the region. To achieve this goal, five shifts of operators work from the main control center in Taylor, Texas. A complete back-up operations center is also housed in Austin.



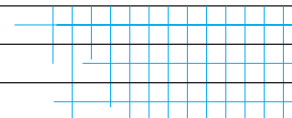
ERCOT power system operators are highly trained professionals who monitor the grid and adjust generation patterns to meet varying demands. Voltages are held at required levels throughout the region. Operators use sophisticated models and programs to address unscheduled plant outages and contingencies. From nearby offices, operations support personnel inform market participants of decisions and invite feedback.

Monthly Peak Demand



2003 Congestion Zones





Low Winter Temperatures and Summer Peak Demand

Load forecasting by ERCOT ensures that enough power is scheduled for the day. Market participants submit their plans to determine any need to access the ancillary services market. Two events in 2003 challenged ERCOT to maintain reliability under the new market rules and emergency operating procedures.

On February 24-25, 2003, sleet and snow fell in many parts of the state. Temperatures dropped well below forecasted levels, and the cold temperatures lasted longer than predicted. At the same time, the ERCOT electric market encountered its first significant curtailments of natural gas supplies. When electric system frequency started decaying during the ice storm, ERCOT staff activated emergency procedures. With the cooperation of market participants, reliability was maintained with only localized short-term outages in some distribution systems.

August 2003 sent temperatures skyrocketing the opposite direction as the state sizzled under 110-degree highs. On August 7, a new all-time peak of 59,996 megawatts (MW) was reached (the previous all-time peak of 57,606 MW occurred in 2000). Once again, ERCOT proved that its system works. The grid remained stable, and no electric service was interrupted.

Weather is a major influence on electric demand in Texas. In 2003, ERCOT severed its dependency on data from 10 control areas for load forecasting. ERCOT now accesses data directly from selected weather zones that have been identified by meteorologists as representative of the variable conditions within the region.

New Systems for Grid Management

ERCOT is unique among interconnections because it models the entire ERCOT region power grid. (Other ISOs in the U.S. only look at portions of the network.) In summer 2003, the company completed and launched an interconnect-wide state estimator function. This technology acts like a new pair of glasses by allowing control room operators to see the entire grid at its most current state.

Data from thousands of generation and load points enter the state estimator and create a nearly real-time view of the transmission system. Instead of once per day, information in the database is refreshed every five minutes. Potential problems in the grid are more visible to operators resulting in improved reliability.

Since 2000, ERCOT's operations division developed and implemented sophisticated systems to:

- Maintain flexibility in the grid for market participants. ERCOT invites market participants to share what procedures are best for them from a business standpoint. These requests are then incorporated as closely as possible into the market structure.
- Settle wholesale market transactions more rapidly.
- Process retail customer choices more efficiently.
- Provide online training to new ERCOT employees regarding protocol basics through the website: www.ercot.com/training.

ERCOT operates under the reliability and safety standards of the North American Electric Reliability Council (NERC). ERCOT assists NERC in developing operating standards and procedures for the grid. Area utilities receive the benefit of ERCOT's participation in the council; ERCOT helps them implement mandatory, as well as recommended, industry standards.

Generation and Transmission: The Power of Planning

Photo courtesy of Oncor, a TXU company



The ERCOT Region Transmission Network:

- Single control area
- 8,000+ miles of 345 kV lines
- 17,000+ miles of 138 kV lines
- 11,500+ miles of 69 kV lines
- 59,996 MW peak load
- 3 DC ties
- 200,000 square miles

In the newly competitive market, transmission planning is a top priority. Load growth in the region continues to reflect the strength of the Texas economy, with particularly high growth in the major metropolitan areas and the Rio Grande Valley. Between 1994 and 2003, ERCOT's peak demand grew 37.6 percent or 16,408 MW, a compound growth rate of 3.61 percent. Since 2001, ERCOT brought 18,000 MW of new generation into the grid. In the next four years, it must integrate an expected 3,500 MW of new generating capacity with about 400 MW of retirements — while managing continuing energy demand growth patterns.

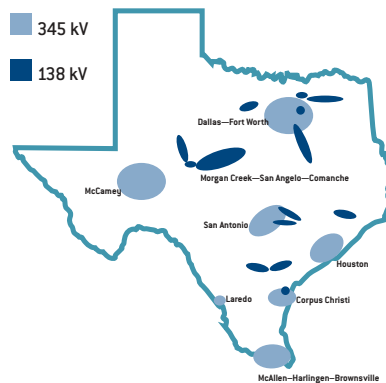
Significant transmission improvements have been made in portions of the ERCOT region in the past year. The Dallas/Fort Worth area, as an example, received substantial system upgrades.

Since 2000, more than 693 miles of new 345 kilovolt (kV) transmission lines have been put in service — enough to span the distance from Dallas to Houston three times over. No other state has come close to matching this level of transmission facility investment in the same period.

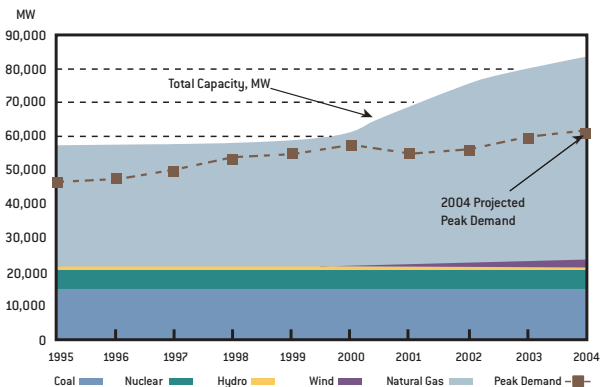
ERCOT enhanced its planning capabilities by establishing a resource planning function in 2003 to systematically study regional energy supply and demand issues. Forecasts of consumption, population growth, industry trends, and sources of new generation will be evaluated on an ongoing basis using some of the most sophisticated system study tools available.



Major Transmission Additions Completed



ERCOT Generation Capacity by Fuel Type



Managing Congestion in the Grid

An essential function of ERCOT is to look for ways to reduce costly transmission constraints in the region. Constraints are the physical limitations that prevent reliable delivery of electricity. For the 12 months ending May 31, 2003, ERCOT calculated that such constraints cost the market in excess of \$300 million.

ERCOT must keep certain power plants in operation to maintain reliability, even though owners may find them unprofitable to operate. Short-term contracts, called Reliability-Must-Run (RMR) service agreements, are used to ensure production from these units. Costs of RMR services are uplifted to the market on a load ratio share. ERCOT performs extensive analysis by taking input from market participants; it then develops exit strategies to eliminate the need for these units and associated market costs. In performing its role, ERCOT examines alternatives to expensive RMR services, often recommending additions to the transmission system.

In 2003, ERCOT recommended exit strategies for five RMR plants that represent about 1,000 MW of generation, or 1½ per cent of total generation in the region. One of these is the Barney Davis unit in Corpus Christi. Within two years, the market will realize an annual savings of \$20 million from exiting this RMR requirement. Other generators scheduled to be closed due to recommended exit strategies are Rio Pecos, San Angelo, Fort Phantom, and La Palma.

Mexico Interconnections

ERCOT began to explore new transmission connections with Mexico in 2003. In recent years, Mexican authorities have enhanced their country's power system along the border. Several Texas communities stand to benefit from these sources of power, and such projects could allow older, inefficient generators in Texas to be retired. Other benefits could include an enhanced international electric trade and mutual emergency support.

Photo courtesy of Lower Colorado River Authority



Photo courtesy of Lower Colorado River Authority

Transmission Resources Key to Wind Power Development

ERCOT has approximately 1,200 MW of wind power installed throughout the region, with more than 900 MW added since 2001. According to the American Wind Energy Association, Texas is now second in the nation, after California, in cumulative wind power capacity.

The lead time required to build transmission power lines has resulted in limitations in integrating energy from Texas wind plants. ERCOT works closely with transmission service providers, stakeholders, and PUCT staff to resolve congestion problems in west Texas and other locations. In 2003, two new 345 kV lines were completed to increase transfer capability out of west Texas.

Wind power development in the McCamey area has outpaced traditional transmission planning and construction. ERCOT and transmission service providers are moving forward on more than \$150 million of approved 138 kV improvements in McCamey. Transfer capability should increase to about 900 MW, which is enough capacity to fully deliver all existing wind resource power from that area.



Information Technology: Advancing the Texas Market through Innovation

ERCOT is the hub for electric power transactions in Texas. In this capacity, it depends heavily on sending and receiving accurate data files. ERCOT's network of 400 servers processes seven terabytes (7,000 gigabytes) of information every day.

In the early stages of implementing Senate Bill 7, ERCOT struggled to meet the needs of the market in such short order. High-end custom grid management software and systems for market billings and settlements were developed at a break-neck pace. Four years later, these complex programs have reached maturity. Improved cost efficiencies are now being realized. In 2003, ERCOT transitioned from being heavily consultant-based, to being an employee-driven system. Much attention was given to integrating new hires into the IT department.

The year has been a time to listen anew to the market. In this regard, a commercial systems architecture upgrade project began in 2003. It will support ERCOT's extensive computer network and provide market participants better access to data. Upgrades will provide greater market transparency and are expected to reduce congestion costs.

ERCOT also developed an advanced market monitoring system for use by the PUCT Market Oversight Division. This suite of tools enables regulators to monitor the market for improper activities and market manipulation. Previously, the system database updated only once per day. New software now refreshes the system every 15 minutes.

ERCOT made significant inroads in managing its technology vendors during the year. Contracts were renegotiated with key sources of consulting, hardware, and network components. These efforts netted \$10.7 million in reduced costs to ERCOT while retaining positive working relationships with vendors.

Project Management

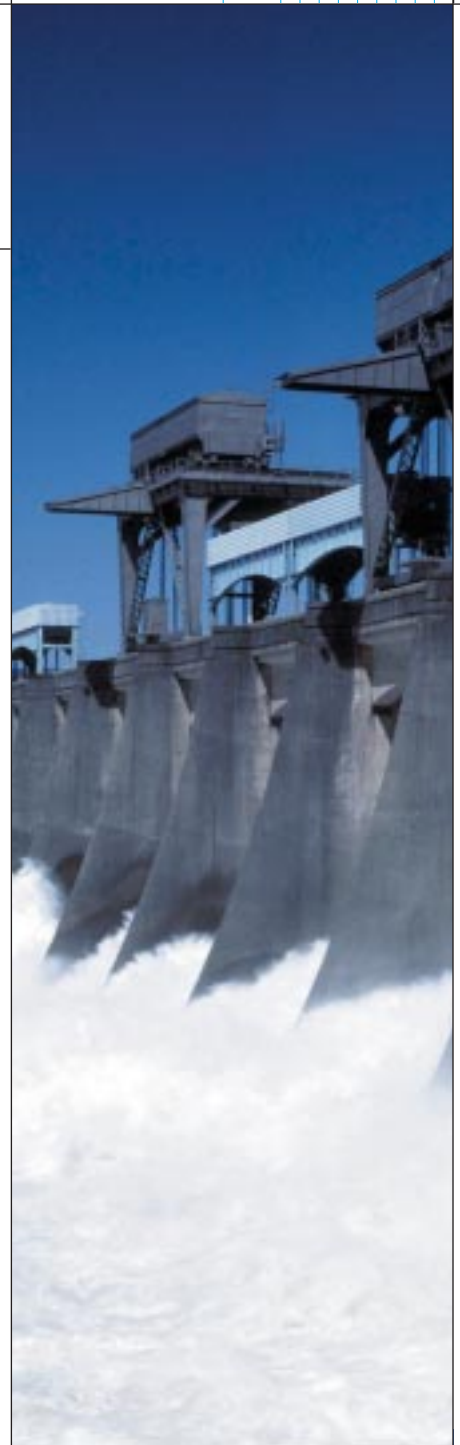
ERCOT completed numerous technology projects for market participants and the PUCT this year. A new project priority list helped to more effectively manage the process. At the beginning of 2003, market participants identified 100 priority-one and priority-two projects for ERCOT's attention. Sixty-three of the projects — involving grid management, market management and commercial operations — were completed. Twenty-one were in progress and 19 were in planning stages at year-end. During 2003, 44 high priority projects were added to the list; all have been addressed by ERCOT staff.

Heightened Security for the Grid

Each month, hackers attempt to penetrate ERCOT's system infrastructure between 20,000 and 50,000 times — a shocking testament to the challenge of doing business in the digital age. ERCOT is deeply committed to employing security measures that protect grid assets. It coordinates these local efforts with the Department of Homeland Security. During the year, ERCOT designed its response system to correspond with national alert levels. In addition, it increased its involvement with NERC in the development of security standards.

In 2003, ERCOT established cyber and physical security centers and hired experienced managers for each. Cyber-security addresses two kinds of attacks on the computer system: broadcasted and focused. On the physical side, ERCOT strengthened its security workforce. Security officers are now Certified First Responders, which means they have been specially trained to handle threats, hostile incidents, and medical emergencies. All have either military or law enforcement backgrounds. ERCOT also conducted corporate-wide security awareness training for the staff in Taylor and Austin. Following this program, it was noted that computer virus attacks at the company dropped by 75 percent.

Because security of the grid is so vital, ERCOT encourages market participants to similarly implement physical and procedural protective measures. ERCOT hosted an IT Forum in Fall 2003 that enabled 225 industry representatives to share best practices. With an emphasis on risk management, attendees networked with peers, discussed market initiatives, and provided valuable feedback to ERCOT staff. During the year, ERCOT also led the effort to create a Critical Infrastructure Protection Advisory Group. The group is structured to provide consultations with market participants regarding security matters.



Market Operations: Catalysts for Improvement

“ We don’t make the market.
We make the market better. ”

Senate Bill 7 started a new phase of ERCOT’s evolution. It linked ERCOT’s traditional focus on reliability with additional responsibilities for providing the market operations foundation for Texas’ deregulated market. ERCOT’s marching orders were clear.

- Ensure non-discriminatory coordination of market activities for all qualified market participants.
- Ensure that electric production and delivery are accurately accounted for among the generators and wholesale buyers and sellers.
- Ensure that information relating to a retail customer’s choice of retail electric provider (REP) is conveyed in a timely manner to the persons who need the information.

In 1999, Senate Bill 7 set forth these objectives. They are now the responsibilities that ERCOT carries out every day for more than 300 market participants, 600 generators, and 5.6 million retail customers with the right to choose their retail electric provider.

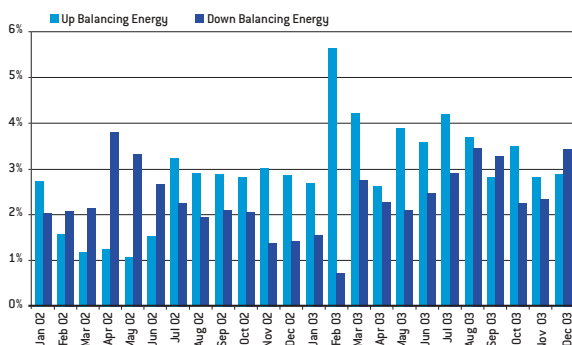
ERCOT personnel have highly specialized skills for implementing unique, state-of-the-art protocols and procedures established by market participants and the PUCT. They possess in-depth knowledge of system operations, information technology, and competitive markets. Ongoing high levels of attention to detail are required to ensure the accurate accounting and conveyance of information related to millions of monthly transactions.



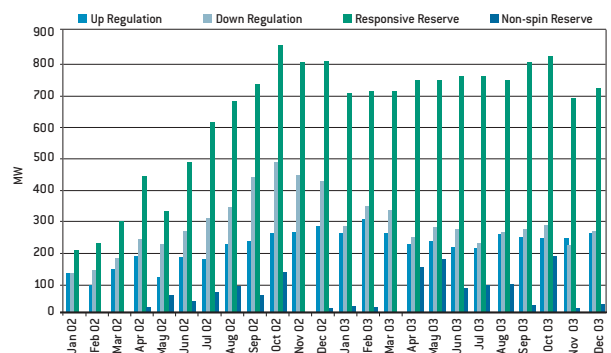
Customers Served by Competitive Retail Providers *(other than original IOU-affiliated company)*

	% Electric Meters	% Total Load
Residential	14%	16%
Small Non-Residential	17%	49%
Large Non-Residential	55%	59%

Average Balancing Energy Deployed as Per Cent of Total Energy Requirement
January 2002 — December 2003



Average Hourly Procurement by Ancillary Service
January 2002 — December 2003





Performance metrics are an important issue to the PUCT, market participants, and ERCOT staff. In general, ERCOT protocols and procedures related to market operations require a minimum 98 per cent performance rate measured across the entire market. ERCOT performs well within this criteria and strives to exceed it to ensure that all market participants receive the same level of service.

ERCOT's performance is particularly noteworthy because it has successfully pioneered a service that no other ISO has attempted. ERCOT maintains a centralized retail customer registration system that includes managing large volumes of detailed transactions, such as customer switching, move-ins, and move-outs. Load profiling services — related to small commercial and residential end-users — are also performed. These are unique services; no other ISO handles these types of transactions. Many now consider ERCOT's model to be the leading example for retail market operations.

ERCOT takes pride in its efforts to conduct open, transparent, and non-discriminatory market activities. Credit for this success must be shared with the market participants in the region. ERCOT has the highest participation rate of any North American ISO in stakeholder activities. In November 2003 alone, ERCOT hosted 80 participant meetings at its offices.

The market operations division includes the market services group, which is the customer relations and account management team. Team members communicate with market participants on market rules and procedures, and ERCOT receives much of its feedback through this area. Market services also facilitates market participant education and market notices related to daily operations, system implementations, and process and procedure changes.

Making the market better is the purpose of market operations. ERCOT continues to investigate and implement initiatives to realize this goal. A market participant feedback survey was initiated in the fourth quarter of 2003. ERCOT developed an approach for the project using input from market participants and an experienced survey firm. The survey, which will be conducted in 2004, will assess ERCOT's alignment with the needs of the market.

2003 Snapshot of the Market

600+ generators

300+ market participants

7 million retail customers

89 qualified scheduling entities
(25 sub-QSE's)

142 transmission and distribution
service providers, including 130
non opt-in entities

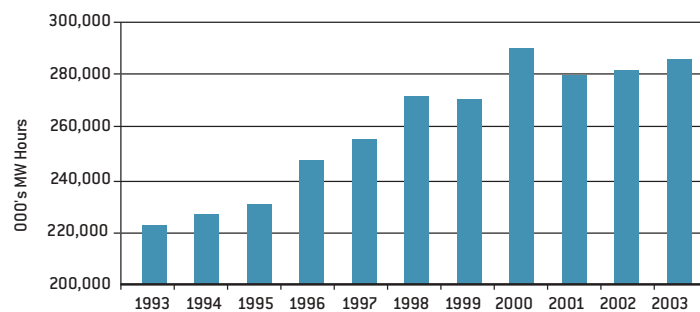
68 competitive retailers

5.6 million customers with the
right to choose provider

Summary Financial Data

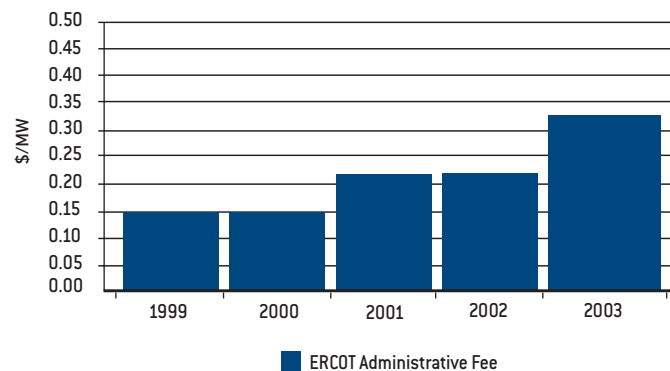
The electric market in the ERCOT region is among the most highly developed in the United States. Ample generation capacity exists for the foreseeable future and substantial transmission infrastructure is in place to move power throughout the region. Between 1993 and 2003, energy consumption increased at an average compounded annual growth rate of approximately 2.6 per cent.

Historic Energy Consumption



The Texas Public Utility Regulatory Act provides that ERCOT may charge a reasonable and competitively neutral fee to wholesale buyers and sellers to cover its costs. Such costs include operational expenses, capital expenditures, and principal and interest payments on debt. The ERCOT board of directors and the PUCT review and approve the fee structure periodically. In 2003, ERCOT's administrative fee was \$0.33 per megawatt hour.

Approved Fees



ERCOT is a non-profit organization and is exempt from Federal income taxation. For the year ended December 31, 2003, revenue was \$97.2 million, operating expense was \$105.1 million, and capital expenditures were \$57.1 million. These activities reflect an increase of \$32.1 million, \$15.9 million, and \$12.3 million, respectively, over the prior year. Total assets were \$244.3 million at December 31, 2003, a decrease of \$24.2 million as compared to the prior year. Additional financial data is summarized in the table below.

The following Summary Historical Financial Data presents summary financial and other data for the fiscal years ended December 31, 2000 through 2003.

Year Ended	12/31/2003	12/31/2002	12/31/2001	12/31/2000
<i>(Dollars in Thousands)</i>				
Statement of Financial Position Data				
Total assets	\$ 244,325	\$ 268,572	\$ 165,798	\$ 80,241
Capital lease obligations	-	-	741	-
Notes payable	<u>150,000</u>	<u>150,000</u>	<u>95,000</u>	<u>40,000</u>
Total debt	150,000	150,000	95,741	40,000
Unrestricted net assets	<u>(5,095)</u>	<u>10,812</u>	<u>39,010</u>	<u>28,810</u>
Total capitalization	144,905	160,812	134,751	68,810
Statement of Activity Data				
Operating revenue	\$ 97,243	\$ 65,086	\$ 65,465	\$ 43,848
Operating expense	105,050	89,165	54,164	18,441
Depreciation and amortization	38,091	31,480	11,242	289
Interest cost, gross	9,363	6,159	4,275	1,283
Lease and service contract costs	1,019	1,030	941	1,104
Change in unrestricted net assets	(15,907)	(28,198)	10,200	25,738
Other Data and Selected Financial Ratios				
EBITDA	\$ 30,284	\$ 7,401	\$ 22,543	\$ 25,696
EBITDA margin	31%	11%	34%	59%
Capital expenditures	57,148	44,833	76,881	67,586

Integrity. Intelligence. Innovation.

ERCOT strives to set the standard for performance as an ISO. In carrying out its mission, it has become a resource for the worldwide energy community. Industry leaders from France, China, Japan, Brazil, and many other countries have visited ERCOT to learn its best practices.

Market Redesign: Purposeful Change for a Dynamic Market

The PUCT directed ERCOT to begin developing a revised wholesale market design. The goal is to provide the market better information and more fairly allocate the costs of maintaining a reliable grid. Each generator's unique operating requirements and characteristics will be captured to achieve a granular look at the system. This will allow ERCOT to manage grid operations with greater efficiency.

Implementation of the market redesign is planned for October 2006. Over the next 12 months, multiple planning sessions with stakeholders, cost-benefit analyses, and PUCT proceedings will determine the final direction of this initiative.

Looking Forward

As the deregulated market in Texas evolves, ERCOT strives to meet its changing needs. Transactions that previously took hours or days to post are now delivered within minutes. ERCOT is focused on developing real-time, interactive data interchanges for use in the market.

ERCOT engineers continue to investigate new technologies that will improve reliability and enhance the market such as:

- Back-to-back ties that convert alternating current (AC) to direct current (DC) and then reconvert into AC in an adjacent grid.
- Dynamic voltage controls for increased capacity within the transmission system.
- Replacement reserve service software that optimizes the amount of energy needed each 24-hour period and is expected to save \$1 million per month when it is launched in summer 2004.
- Special protection system software that integrates an automated response in fractions of seconds to address serious problems that could arise in the transmission network.
- Additional opportunities for loads that can either be interrupted or cycled to provide valuable services to the ERCOT system.







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