

1 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

2 A. The Human Resources department within CenterPoint Energy Service Company,
3 LLC provides compensation and benefits services to business units throughout
4 CNP, including the Company. The purpose of my direct testimony is to provide an
5 overview and assessment of CNP's compensation practices and to opine on the
6 reasonableness of the overall compensation practices and the inclusion of the total
7 compensation costs in the rates to be established for the Company in this
8 proceeding. Company witness Lynne Harkel-Rumford addresses the
9 reasonableness of the compensation and benefit plans offered to employees of the
10 Company and other CNP business units that provide support services to the
11 Company.

12 **II. OVERVIEW OF COMPENSATION PLAN**

13 **Q. WHAT ARE THE COMPONENTS OF THE COMPENSATION PACKAGE**
14 **CNP OFFERS TO CENTERPOINT HOUSTON AND OTHER**
15 **EMPLOYEES WITHIN CNP BUSINESS UNITS?**

16 A. The components of the total compensation plan are base salary, short-term
17 incentives ("STI"), long-term incentives ("LTI"), and benefits.

18 **Q. BASED UPON YOUR EXPERIENCE, IS CENTERPOINT HOUSTON'S**
19 **TOTAL COMPENSATION, INCLUDING THE USE OF INCENTIVE**
20 **COMPENSATION, CONSISTENT WITH THAT OF OTHER COMPANIES**
21 **IN THE ENERGY INDUSTRY?**

22 A. Yes, it is. Base compensation, STI and LTI are common components of most utility
23 compensation programs with which I am familiar.

1 **Q. IN YOUR OPINION, IS THE APPROACH USED BY CNP TO EVALUATE**
2 **THE COMPETITIVENESS OF THE TOTAL COMPENSATION PAID TO**
3 **EMPLOYEES REASONABLE?**

4 A. Yes. The use of surveys and other forms of market data is a common and
5 appropriate method for CNP to employ to evaluate the reasonableness of the
6 compensation package. Based upon my experience, this is the predominant
7 approach used to evaluate the competitiveness of a utility's compensation levels. It
8 is also logical that CNP should evaluate the competitiveness of its total
9 compensation package by monitoring the compensation packages of other
10 employers against which it competes for employees. Ms. Harkel-Rumford
11 discusses the general and industry surveys that CNP uses to monitor market-based
12 pay levels.¹

13 **Q. HAVE YOU REVIEWED THE LIST OF SURVEYS ROUTINELY**
14 **MONITORED BY CNP?**

15 A. Yes, I have. As previously mentioned, I am familiar with such types of surveys
16 and would note that many of my industry clients utilize these or similar surveys to
17 evaluate total compensation levels paid to employees.

¹ Direct Testimony of CenterPoint witness Ms. Harkel-Rumford, pp. 14-16, beginning at line 22.

1 **Q. DO YOU BELIEVE THE VARIOUS SURVEYS PROVIDE A**
2 **REASONABLE BASIS UPON WHICH TO DETERMINE THE LEVEL OF**
3 **COMPENSATION THAT THE COMPANY AND OTHER CNP BUSINESS**
4 **UNITS MUST PAY EMPLOYEES TO ATTRACT AND RETAIN WELL-**
5 **QUALIFIED EMPLOYEES?**

6 A. Yes, I believe the surveys monitored by CNP and the Company provide valuable
7 competitive insights that can be used to inform the market-based levels of total
8 compensation that CNP's, including the Company's, current and prospective well-
9 qualified employees will command.

10 **III. CENTERPOINT HOUSTON'S OPERATING ENVIRONMENT**

11 **Q. WHY IS IT IMPORTANT THAT CNP PROVIDE COMPETITIVE**
12 **COMPENSATION PACKAGES TO EMPLOYEES OF THE COMPANY**
13 **AND OTHER BUSINESS UNITS THAT PROVIDE SERVICES TO THE**
14 **COMPANY?**

15 A. As discussed by Ms. Harkel-Rumford, approximately 29% of CNP's employees are
16 currently eligible to retire and 38% will be eligible to retire by 2022.² Therefore,
17 ensuring competitive salaries, incentive compensation, and benefit plans that are
18 both strategic and cost effective are key to retaining current employees, while
19 recruiting new employees for the benefit of all stakeholders.³

² *Id.*, p. 12, lines 20-21.

³ *Id.*, p. 13, lines 2-5.

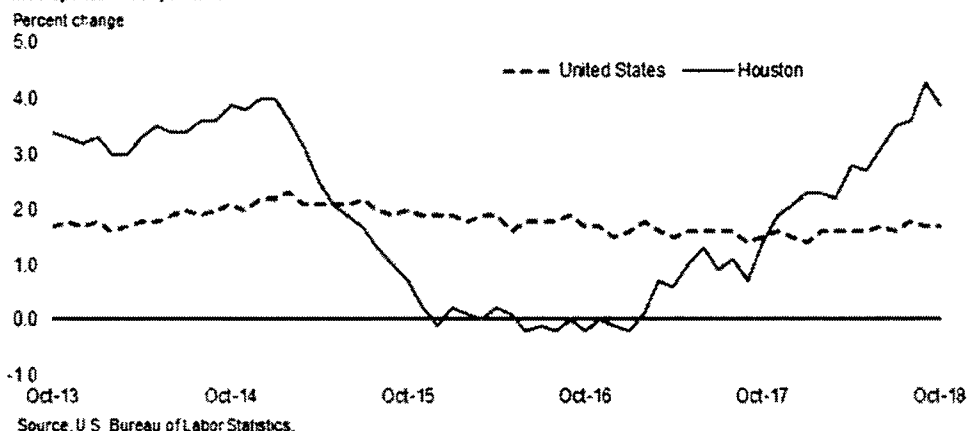
1 **Q. ARE THERE OTHER FACTORS THAT NECESSITATE THAT CNP AND**
2 **CENTERPOINT HOUSTON OFFER A COMPETITIVE TOTAL**
3 **COMPENSATION PACKAGE TO ATTRACT AND RETAIN**
4 **EMPLOYEES?**

5 A. Yes. CNP and the Company should strive to retain and attract the most qualified
6 employees who are able to efficiently and effectively perform their assigned duties
7 at a reasonable cost. Failure to provide a total compensation package equivalent to
8 other companies competing for the same talent could challenge CNP's and the
9 Company's abilities to meet customers' expectations regarding reliability and
10 customer service.

11 **Q. WHAT OTHER FACTORS POTENTIALLY IMPACT CNP'S AND**
12 **CENTERPOINT HOUSTON'S ABILITIES TO ATTRACT AND RETAIN**
13 **QUALIFIED EMPLOYEES?**

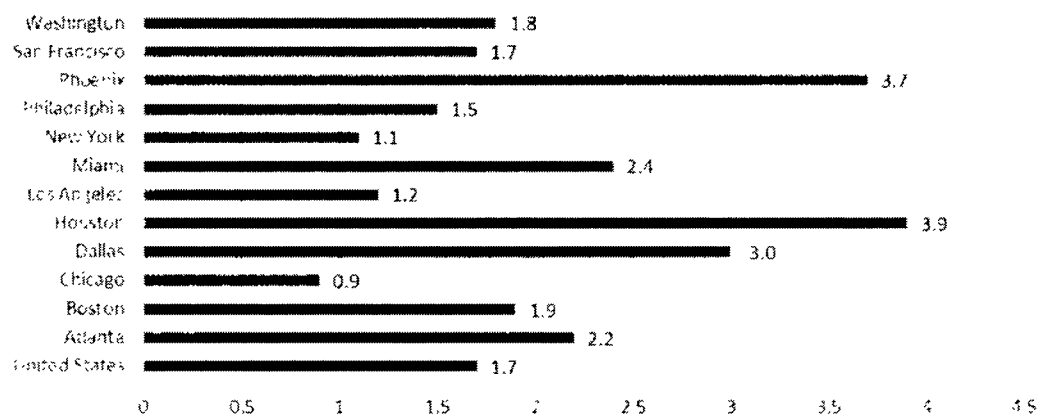
14 A. As shown in the following graphic from the United States Bureau of Labor
15 Statistics ("BLS"), total nonfarm employment in the Houston Metropolitan
16 Statistical Area is significantly higher than in the remainder of the United States.
17 Houston ranked first in both the number of jobs added over the year and the annual
18 rate of job growth. As a result of the higher employment levels in Houston, the
19 pool of potential qualified candidates is smaller than in other regions of the country.
20 The graphic shows data related to the year-over-year percent change in total
21 nonfarm employment in the United States and the Houston area for the period
22 October 2013 through October 2018.

Chart 1. Total nonfarm employment, over-the-year percent change in the United States and the Houston metropolitan area, October 2013–October 2018



1 As shown in the following graphic, BLS also reported in October 2018 that total
 2 nonfarm employment in the Houston-The Woodlands-Sugar Land Metropolitan
 3 Statistical Area stood at 3,158,800 jobs in October 2018, up 117,800 jobs or
 4 3.9 percent, from one year earlier. During the same period, the national job count
 5 increased 1.7 percent. The BLS report further noted that among the 12 largest
 6 metropolitan areas in the country, Houston ranked first in both the number of jobs
 7 added over the 12-month study period and the annual rate of job growth.

Total Non-Farm Employment, Over the Year Percent Change, United States and 12 Largest Metropolitan Areas, October 2018



1 According to a BLS Economic News Release dated March 11, 2019, employment
 2 in the State of Texas increased year-over-year from January 2018 to January 2019
 3 by 2.4 percent, indicating the continued strong employment environment in the
 4 State.⁴

5 **Q. DO YOU HAVE ADDITIONAL DATA CONFIRMING THE STRONG JOB**
 6 **GROWTH IN THE HOUSTON AREA?**

7 A. Yes. Trade, transportation, and utilities, Houston's largest employers, added
 8 16,000 jobs from October 2017 to October 2018. All three sub-sectors added jobs:
 9 retail trade (+5,600); transportation, warehousing, and utilities (+5,600); and
 10 wholesale trade (+4,800). Over the year, local employment in the trade,
 11 transportation, and utilities sector increased 2.6 percent, more than double the
 12 1.1 percent nationwide increase.

13 The following table summarizes the number of employees employed in the
 14 trade, transportation and utilities sector for the United States and Houston
 15 Metropolitan area. The numbers are in thousands and are not seasonally adjusted.

Area	Industry	Oct. 2017	Aug. 2018	Sept. 2018	Oct. 2018	Net Change	Percent Change
United States	Trade, transportation and utilities	27,604	27,797	27,715	27,910	306	1.1%
Houston	Trade, transportation and utilities	619.9	634.5	629.8	635.9	16.0	2.6%

16 As shown in the table, the trade, transportation and utilities industries added jobs at
 17 a rate of over two times that of the United States as a whole. Further, according to

⁴ Bureau of Labor Statistics Economic News Release, Mar 11, 2019, Table D.

1 the Texas Workforce Commission, Texas' 3.7 percent jobless rate remains the
2 lowest since 1976 when officials started collecting statewide unemployment data.⁵

3 **Q. WHAT DO YOU CONCLUDE FROM THE ABOVE TABLE AND**
4 **GRAPHS?**

5 A. The data clearly confirms that CNP and CenterPoint Houston operate in a highly
6 competitive market for candidates seeking employment opportunities. Given the
7 historically low unemployment rates, the pool of available candidates from which
8 to hire is small, and the available candidates can be more selective regarding their
9 potential job opportunities. As such, to attract and retain the necessary talent to fill
10 positions vacated due to retirements (i.e., up to 38% of CNP's employees), CNP
11 and CenterPoint Houston must offer a total compensation package that equals or
12 exceeds that of other employers. The need for a competitive total compensation
13 package is accentuated due to the historically low pool of prospective employees.

14 **Q. IS THE USE OF BASE PAY, STI AND LTI COMPENSATION AN**
15 **APPROPRIATE MIX OF TOTAL COMPENSATION?**

16 A. Yes. The use of base pay, STI and LTI compensation are the predominant
17 components of utilities' total compensation packages with which I am familiar. The
18 incentive compensation serves to motivate employees and offer financial rewards
19 for achieving established targets and goals.

⁵ The Dallas Morning News, Inc., Dec. 21, 2018.

1 **Q. WHY DON'T CNP AND CENTERPOINT HOUSTON UTILIZE JUST**
2 **BASE COMPENSATION WITHOUT INCENTIVES?**

3 A. The objective of a total compensation package is to focus employees on
4 understanding cost drivers and achieving specified targets and goals. Unlike a
5 compensation package that consists solely of base pay, wherein an employee will
6 receive fixed compensation regardless of performance, under a compensation
7 package with incentives, if the targets and goals are not achieved, the employee is
8 not compensated for goals not achieved. Conversely, if an employee meets or
9 exceeds established goals and targets, the opportunity exists to earn incremental
10 compensation.

11 **IV. REGULATORY TREATMENT OF INCENTIVE COMPENSATION**

12 **Q. BASED UPON YOUR REVIEW OF PRIOR RATE CASE DECISIONS IN**
13 **TEXAS, WHAT IS YOUR ASSESSMENT OF THE REGULATORY**
14 **TREATMENT OF THE COSTS ASSOCIATED WITH INCENTIVE**
15 **COMPENSATION PACKAGES OFFERED BY REGULATED UTILITIES**
16 **IN THE STATE?**

17 A. I think it is a fair characterization that the regulatory treatment of incentive
18 compensation costs in recent rate proceedings in the state of Texas has been
19 inconsistent.

20 **Q. PLEASE EXPLAIN.**

21 A. In its Order in Docket No. 38339, the Commission found that the evidence
22 presented in the proceeding demonstrated that CenterPoint Houston's STI
23 compensation plan was a reasonable and necessary component of a total
24 compensation package required to recruit, retain, and motivate employees. The

1 Commission also found that the corporate and financial goals of STI were directly
2 tied to metrics such as customer service and safety.⁶

3 The Commission has, however, also disallowed incentive compensation
4 (both STI and LTI) tied to financial goals. Financial goals have previously been
5 identified as those goals that relate to “maximizing profit and growth, increasing
6 earnings per share, or increasing return on equity.”⁷

7 **Q. HOW CAN INCONSISTENT REGULATORY TREATMENT**
8 **REGARDING COST RECOVERY OF THE COMPANY’S**
9 **COMPENSATION COSTS IMPACT ITS DECISION MAKING?**

10 A. The rates established in this proceeding will include the return of and on rate base
11 and the recovery of operation and maintenance (“O&M”) expenses, including
12 payroll costs paid to employees. In order to continue to attract and retain well
13 qualified employees, CNP and the Company need to offer a total compensation
14 package that attracts employees and competes with that of other employers.

15 If the requested level of payroll expenses included in the Company’s rate
16 filing is reduced to exclude any portion of its compensation expenses, employees
17 will continue to expect the same level of pay regardless of whether the
18 compensation was associated with short-term incentive goals.

⁶ *Application of CenterPoint Electric Delivery Company, LLC, for Authority to Change Rates*, Docket No. 38339, Order on Rehearing, p. 22, Findings of Fact 81 and 83 (Jun. 23, 2011).

⁷ *Application of AEP Texas Central Company for Authority to Change Rates*, Docket No. 33309, Proposal for Decision, p. 120 (Aug. 30, 2007); *See also* Docket No. 33309, Final Order at Finding of Fact 82 (Mar. 4, 2008).

1 **Q. PLEASE ELABORATE.**

2 A. The Company competes for qualified employees with other employers in the
3 Houston metropolitan region and nationally for management personnel. The
4 Company's total compensation package (including STI and LTI) is competitive
5 with that of other employers in its region. The payment of incentive compensation
6 does not increase the compensation package above that of companies against which
7 the Company competes for resources. Rather, the incentive compensation is one
8 component of the total competitive compensation package.

9 Employees make decisions based upon the stability of employment, benefits
10 and total compensation paid. It does not ultimately matter to the employee whether
11 the total compensation package consists of base compensation, STI and LTI
12 compensation or just base pay that equates to the sum of the three components. In
13 fact, employees would likely prefer total compensation to be base compensation
14 only to provide stability and predictability from pay check to pay check. If the
15 Company were to be denied recovery of a portion of its total compensation costs in
16 this proceeding because a portion of the costs are based upon achievement of
17 established goals, the Company will still need to pay its employees a total
18 prevailing wage, regardless of whether it is associated with achieving goals.

19 If the Company is not allowed to recover incentive compensation expenses
20 actually paid to employees for achieving established goals, the following outcomes
21 will occur: 1) the Company could justifiably eliminate incentive compensation
22 from its total compensation package, which could cause the total compensation
23 package to be below market comparables causing experienced and valuable

1 employees to leave the Company in search of employment elsewhere that provides
2 a higher, stable total compensation package; 2) if the Company chooses to continue
3 to offer incentive compensation and cost recovery is excluded from rates, investors
4 will be forced to absorb the non-recoverable expense, which will ultimately reduce
5 returns and drive investors to seek investments with higher returns, which in turn
6 will likely drive up the Company's cost of capital; or 3) the Company could offer a
7 compensation package excluding incentive compensation but increasing base
8 compensation to offset the elimination of STI. Under the latter scenario, total
9 compensation would remain the same as currently offered, but would not be
10 contingent on the achievement of established goals.

11 **Q. WHY WOULD A DISALLOWANCE OF INCENTIVE COMPENSATION**
12 **COSTS POTENTIALLY RESULT IN THE DISCONTINUANCE OF SUCH**
13 **PAYMENTS TO EMPLOYEES?**

14 A. A prudently incurred expense for which recovery is not allowed will negatively
15 impact the Company's financial performance. To maintain strong financial
16 performance, the Company could choose to eliminate costs it is not authorized to
17 recover through rates.

18 **Q. HOW COULD THE ELIMINATION OF INCENTIVE PAYMENTS**
19 **AFFECT THE COMPANY?**

20 A. As I previously described, the job market in Texas generally, and Houston
21 specifically, is very strong. If employees are no longer compensated for achieving
22 (or exceeding) established goals, absent changes to the overall compensation plan,
23 their total income potential would decline, and they may, as a result, seek

1 employment opportunities outside of CNP or CenterPoint Houston that offer more
2 competitive compensation plans. Further, if employees were no longer
3 compensated for achieving defined goals, they may be less motivated to strive to
4 achieve goals for which there is no financial reward.

5 These employees would likely be high performers who understand and are
6 motivated by the realization that achieving and/or exceeding goals results in greater
7 compensation. If CNP or the Company were to lose high performing employees,
8 reliability and customer satisfaction could decline while costs could increase,
9 leading to higher rates.

10 **Q. WHAT ALTERNATIVE IS AVAILABLE TO CNP OR THE COMPANY TO**
11 **PREVENT THE POTENTIAL LOSS OF HIGH PERFORMING**
12 **EMPLOYEES?**

13 A. As I previously mentioned, the Company could revert to a compensation plan
14 consisting solely of base pay with no variable components associated with
15 performance. To attract high performing employees, established base pay levels
16 would need to be competitive with compensation packages offered by other
17 employers in the area, and thus would likely reflect a higher base pay than the
18 Company currently offers.

19 **Q. HOW WOULD THE BASE PAY ONLY PLAN IMPACT CUSTOMERS?**

20 A. While total compensation costs would likely be consistent with current levels
21 (albeit all base compensation), employees may focus less on defined goals such as
22 customer satisfaction and reliability of the system given that their compensation is
23 no longer impacted by individual performance. This could lead to the need for

1 additional employees to accomplish the same level of work, which could lead to
2 higher expenses.

3 **Q. DO THE COMPANY AND ITS CUSTOMERS BENEFIT FROM A BASE**
4 **PAY ONLY COMPENSATION APPROACH?**

5 A. No. The Company's goals are to provide safe and reliable service to its customers
6 at reasonable rates, to provide its employees with a safe work environment and a
7 fair wage, and to provide investors with a fair return on their investment. Each of
8 these goals is currently achievable under the current compensation plan. If service
9 quality were to decline, or additional employees are required to provide the same
10 level of service, customers would likely bear such costs via higher rates.

11 **V. REASONABLENESS OF THE USE OF FINANCIAL**
12 **GOALS IN CNP'S INCENTIVE PLANS**

13 **Q. IN PREVIOUS PROCEEDINGS, HAS THE COMMISSION DISALLOWED**
14 **THE COSTS OF THE STI PLAN?**

15 A. Yes, as previously discussed, the Commission has in certain proceedings denied
16 recovery of incentive costs associated with metrics that were considered to be tied
17 to financial goals or which focus on shareholder return.

18 **Q. HOW DO YOU RESPOND TO THE COMMISSION'S CONCERNS?**

19 A. While I understand the Commission's position that the costs associated with goals
20 that are presumed to benefit shareholders should be borne by the shareholders and
21 not customers, I believe the Company's customers are the primary beneficiaries of
22 achieving all of the incentive goals.

1 **Q. ARE INCENTIVE COMPENSATION PLANS AN APPROPRIATE TOOL**
2 **TO INCENT EMPLOYEES?**

3 A. Yes. As I previously discussed, incentives provide strong signals to employees
4 regarding what a company considers to be key priorities and acceptable
5 performance. By clearly identifying, explaining and funding such targets,
6 employees at all levels understand and focus on those factors that drive financial
7 and operational performance as well as customer engagement and satisfaction.

8 **Q. HOW DO CUSTOMERS BENEFIT FROM THE COMPANY'S**
9 **INCENTIVE COMPENSATION PROGRAMS?**

10 A. Customers are primarily concerned about the safety and reliability of electric
11 service, responsiveness of the Company to complaints and issues, and the value of
12 services provided by the Company. These are primarily the goals against which
13 the Company's and its employees' performance are evaluated under the existing
14 STI and LTI compensation plans. Therefore, it is my conclusion that the
15 Company's compensation plans appropriately encourage good employee
16 performance and result in benefits to customers.

17 **Q. PLEASE ELABORATE ON HOW THE STI PLAN BENEFITS THE**
18 **COMPANY'S CUSTOMERS.**

19 A. As I previously mentioned, the metrics monitored to determine STI payments
20 include customer satisfaction, safety, O&M expenditure management, operating
21 income, and earnings per share. The Company's customers clearly benefit from
22 employees' focus on customer satisfaction, reliability, safety goals, and O&M
23 expenditure management. These represent factors that are of the utmost importance

1 to customers—safe, reliable service, and responsive customer service at a
2 reasonable price.

3 **Q. PLEASE SUMMARIZE HOW CNP'S LTI PROGRAM BENEFITS THE**
4 **COMPANY'S CUSTOMERS.**

5 A. As described by Ms. Harkel-Rumford, the LTI plan is designed to focus the efforts
6 of participants on sustained improvements in CNP's and the Company's
7 performance over a longer period of time, typically three years. The LTI plan is
8 also designed to retain participants over time to maintain continuity of the
9 management team. LTI pay is a variable compensation component that rewards
10 participants with shares of CNP stock based on achievement of goals measured over
11 three-year overlapping periods. The 2018 goals were based on total shareholder
12 return and net utility income. As with STI goals, LTI focuses on the retention of
13 the senior management team as well as factors that directly benefit customers,
14 namely cost controls and profitability.

15 **Q. HOW DO THE OPERATING INCOME, EARNINGS PER SHARE, AND**
16 **SHAREHOLDER RETURN METRICS BENEFIT THE COMPANY'S**
17 **CUSTOMERS?**

18 A. Operating income, earnings per share, and shareholder return are ultimately driven
19 by the Company's ability to operate efficiently and effectively. While these metrics
20 do benefit shareholders, the customers are also benefactors of positive performance
21 on behalf of the Company.

1 **Q. PLEASE EXPLAIN.**

2 A. The ability to operate efficiently and effectively impacts the Company's net
3 operating income, both from cost impacts and revenue impacts. Strong net
4 operating income, in turn, drives earnings per share. If the Company is able to
5 operate efficiently and effectively, it can potentially avoid or delay the need to seek
6 rate increases, thereby benefiting its customers. Further, strong financial
7 performance by the Company will also enable it to borrow funds for capital
8 programs at a lower cost, which will control the Company's overall cost of debt
9 and cost of equity. The lower cost of debt and cost of equity will offset the level of
10 future rate increases sought by the Company, thereby reducing the costs that
11 customers ultimately bear.

12 **Q. HAS RESEARCH SHOWN THAT INCENTIVES CAN INCREASE**
13 **PERFORMANCE OF EMPLOYEES?**

14 A. Yes. Research has demonstrated that some human resource programs and
15 initiatives produce a significant impact on performance in organizations, as
16 measured by factors such as quality, productivity, speed, customer satisfaction, and
17 unwanted turnover. The two initiatives that consistently showed statistically
18 significant positive results were linking pay to performance and using variable pay.
19 The research established the potential of variable pay to produce desired business
20 results.⁸

⁸ Robert Greene, *Variable Pay: How to Manage it Effectively*, at 4 (Society of Human Resource Management, Apr. 2003).

1 **Q. DO YOU HAVE AN OPINION AS TO WHETHER INCENTIVE**
2 **PAYMENTS ASSOCIATED WITH THE COMPANY'S OVERALL**
3 **FINANCIAL PERFORMANCE SHOULD BE RECOVERED THROUGH**
4 **THE RATES ESTABLISHED IN THIS PROCEEDING?**

5 A. Yes, I do. Management should be assessed based upon the Company's ability to
6 provide safe and reliable service at a reasonable cost. Customers should reasonably
7 expect that the Company will manage and control the costs that it incurs to provide
8 service. If the Company was not focused on cost control, there would likely be
9 more frequent rate case filings, which would lead to higher rates to be paid by
10 customers. By way of the financial metrics included in the incentive programs, the
11 Company is able to better manage the costs of providing services to its customers
12 and defer the need for, and size of, future rate filings. Clearly, this is a benefit to
13 the Company's customers, and therefore the costs of achieving the strong financial
14 performance should be borne by the customers who reap the benefits of such
15 avoided costs.

16 **Q. BASED UPON YOUR KNOWLEDGE OF THE ENERGY INDUSTRY**
17 **THROUGHOUT THE UNITED STATES, ARE THERE REGULATORY**
18 **COMMISSIONS THAT ALLOW THE RECOVERY IN RATES OF**
19 **INCENTIVE COMPENSATION?**

20 A. Yes. In fact, other jurisdictions in which CNP operates allow for recovery of
21 incentive compensation costs.

1 The Oklahoma Corporation Commission has approved full recovery of
2 incentive compensation costs in every annual filing since the 2006 test year through
3 the Performance Based Rate Change (“PBRC”) Plan.⁹

4 In its Final Order in Cause No. PUD 2018000029, the Oklahoma
5 Commission stated, “although the Commission has allowed both LTI and STI in
6 years in which the PBRC Plan has called for a rate increase (e.g., Order No. 614541
7 at p. 4 in Cause No. PUD 201300033; Order No. 627433 at p. 4-5 in Cause No.
8 PUD 201400070; Order No. 646583 (Ex. A, at p. 6-7) in Cause No. PUD
9 201500118; Order No. 669205 (Att. 1 at p. 17) in Cause No. PUD 201700078), it
10 does not reach the same conclusion in this Cause based solely on this fact. The
11 Commission reviews the Company’s PBRC annually. During each annual review,
12 the Commission reviews the facts and circumstances presented in the respective
13 cause to reach its ultimate conclusion—and does not base its decision merely
14 because it reached such a decision in a prior proceeding.

15 The principal goal of incentive compensation is employee behavior that
16 promotes safety, operations performance, and financial performance. This behavior
17 is particularly important in years observed in the 2017 test-year where employees
18 must identify and accomplish upgrades to the gas distribution system for safety and
19 reliability and combat customer attrition prevalent in the Company’s rural service
20 area, because of factors outside of CenterPoint Oklahoma’s control.

⁹ *In the Matter of the Application of CenterPoint Energy Resources Corp.*, Oklahoma Corporation Commission, Order No. 646583 at p. 18, Cause No. PUD201500118 (Nov. 4, 2015).

1 Based upon the record before it in this proceeding, the costs for the
2 Company's LTI and STI compensation should be allowed."¹⁰

3 The Indiana Utility Regulatory Commission ("IURC") stated in its Order in
4 Cause No. 43839 that it recognizes the value of incentive compensation plans as
5 part of an overall compensation package to attract and retain qualified personnel.
6 Recovery of incentive compensation costs are recovered in rates when: (1) the
7 incentive compensation plan is not a pure profit-sharing plan, but rather
8 incorporates operational as well as financial performance goals; (2) the incentive
9 compensation plan does not result in excessive pay levels beyond what is
10 reasonably necessary to attract a talented workforce; and (3) shareholders are
11 allocated part of the cost of the incentive compensation programs.¹¹ While Vectren
12 South's annual incentive compensation plan incorporates financial performance
13 measures (EPS), it also includes non-financial measures such as safety, customer
14 satisfaction (inclusive of call center service levels), and generation unit availability.
15 In Cause No. 43680, the IURC approved cost recovery for an incentive
16 compensation program that included significant components dependent upon
17 Indiana-American reaching its financial goals as well as "operational and individual
18 goals, which incent employees to aid Indiana-American in improving its
19 capabilities and service through increased efficiency and reliability."¹² Similarly

¹⁰ *In the Matter of the Application of CenterPoint Energy Resources Corp.*, Oklahoma Corporation Commission, Order No. 684379, p. 3, Cause No. PUD 2018000029 (2018).

¹¹ *Petition of Southern Indiana Gas and Electric Company d/b/a Vectren Energy Delivery of Indiana, Inc., for Approval of and Authority for an Increase in Rates*, Indiana Utility Regulatory Commission, Cause No. 43839, Final Order, p. 50 (Apr. 27, 2011).

¹² *Id.*, citing *Indiana-American Water Co.*, 2010 Ind. PUC LEXIS 155, p. 219.

1 here, the IURC found Vectren South’s incentive compensation plan sufficiently
2 meets the requirements of the first criterion.

3 The IURC found that Vectren South’s incentive compensation plan does
4 not result in excessive pay levels beyond what is reasonably necessary to attract a
5 talented workforce.¹³

6 The following are additional examples from various commissions
7 throughout the United States that include the recovery of costs associated with
8 incentive plans.

9 In Docket U-16-066, the Alaska Public Utility Commission (“Alaska
10 Commission”) stated, “[w]e affirm that it is acceptable for a utility to have a total
11 compensation package that includes incentive compensation, provided that the
12 overall cost is not excessive in a regulatory context.¹⁴ The Short-Term Incentive
13 Plan includes individual and ENSTAR-wide performance metrics, that ENSTAR
14 asserts are largely based on safety, reliability, and customer-focused performance.
15 These plan goals were weighted equally: (1) financial performance, including
16 managing O&M expenses; (2) providing excellent customer service, including
17 minimizing leak response times and abandoned call rates; and (3) maintaining a
18 safe workplace, such as low recordable injury and preventable vehicle accident
19 rates.¹⁵ ENSTAR’s incentive compensation plans benefit ratepayers by setting and
20 holding employees to goals that directly relate to customer service and cost
21 controls, and by attracting and retaining highly qualified employees to provide safe

¹³ Indiana Utility Regulatory Commission, Cause No. 43839, Final Order, p. 50.

¹⁴ The Regulatory Commission of Alaska, Order Resolving Revenue Requirement and Cost-of-Service Issuers and Requiring Filings, U-16-066 Order 19, pp. 58-59 (Sept. 22, 2017).

¹⁵ *Id.*, pp. 60-61.

1 and reliable service. We find that inclusion of the incentive compensation amounts
2 as an expense in ENSTAR’s revenue requirement is reasonable. Similarly, by
3 analogy we include the supplemental executive retirement plan and related trust fee
4 amounts, relocation allowance, housing cost, and auto allowance as expenses in the
5 revenue requirement as part of ENSTAR’s total compensation package.”¹⁶

6 In Proceeding No. 17AL-0429G, the Colorado Public Service Commission
7 found that Staff and the Office of Consumer Counsel each failed to satisfy its
8 burden of proof to reject Atmos’ inclusion of equity and incentive compensation
9 costs in O&M expenses.¹⁷ The Commission further found that “these expenses are
10 necessary to attract and to retain the experienced, highly skilled employees
11 necessary to operate a safe and reliable gas utility system. Atmos’ equity and
12 incentive compensation expenses are reasonable and clearly benefit the interests of
13 ratepayers and public safety. Moreover, Staff’s proposal to disallow 50 percent of
14 the expenses related to providing equity compensation to managers and executives
15 is unsupported by any empirical or credible evidence, and is arbitrary and
16 capricious.”¹⁸

17 In Georgia, the Georgia Power Company (“Georgia Power”) utilizes an
18 incentive compensation plan called the Performance Pay Plan (“PPP”). “[Georgia
19 Power’s] PPP is governed by the Southern Company Omnibus Incentive
20 Compensation Plan (“Omnibus Plan”) and the Omnibus Plan is administered by the

¹⁶ *Id.*, p. 62.

¹⁷ *In the Matter of Atmos Energy Corporation to Increase Base Rates*, Public Utilities Commission of Colorado, Decision No. R18-0014, Proceeding No. 17AL-0429G (Jan. 8, 2018), p. 48 (*adopted by* Commission in Decision No. C18-0311 (Apr. 4, 2018)).

¹⁸ *Id.*

1 Compensation and Management Succession Committee of the Southern Company
2 Board of Directors (“The Committee”). According to the Omnibus Plan, as it
3 relates to how PPP payouts are determined, each plan participant has performance
4 goal measures along with a weight for each performance goal measure. The
5 standard weights include: (1) One-third Southern Company Earnings Per Share
6 (“EPS”); (2) One-third Business Unit(s) Net Income; and (3) One-third Business
7 Unit(s) Operational Goals.”¹⁹ In the proceeding, Staff recommended, and the
8 Commission accepted, the recovery of PPP costs.

9 **VI. CONCLUSION**

10 **Q. IN YOUR OPINION, ARE THE BASE SALARY AND INCENTIVE**
11 **COMPENSATION LEVELS CNP OFFERS REASONABLE?**

12 A. Yes. As Ms. Harkel-Rumford explains, CNP’s overall total cash compa-ratio for
13 all non-union jobs is approximately 98 percent of market median.²⁰ And CNP’s
14 average total compensation levels when LTI is included are below the market
15 median at approximately 98 percent for LTI eligible employees.²¹

16 **Q. WHAT IS YOUR RECOMMENDATION REGARDING HOW THE**
17 **COMPANY’S REQUESTED INCENTIVE COMPENSATION EXPENSE**
18 **SHOULD BE TREATED IN THIS PROCEEDING?**

19 A. It is my recommendation that the Commission should allow CenterPoint Houston
20 to include its full test year compensation costs, including incentive compensation,

¹⁹ Georgia Public Service Commission, , Docket No. 36989, Order on 2014 Annual Retail Surveillance Report, p. 2 (Feb. 18, 2016).

²⁰ Direct Testimony of Company witness Ms. Harkel-Rumford, p. 23, lines 18-19.

²¹ *Id.*, p. 30, lines 10-12.

1 in rates that are established in this proceeding. My recommendation is premised
2 upon the following facts:

- 3 • CNP's total compensation costs, including incentive costs, are reasonable
4 and approximate the median (50th percentile) of the market for total
5 compensation represented by the companies included in the market surveys
6 CNP uses to assess the competitiveness of its compensation and benefits.
- 7 • By establishing goals that focus employees on metrics that directly impact
8 and benefit customers, CNP's incentive plans provide an undeniable benefit
9 to the Company's customers, and the Company is able to provide reliable
10 service at a reasonable and competitive cost.
- 11 • The compensation package offered by CNP and the Company is reasonable
12 and required to recruit, retain, and motivate employees in a highly
13 competitive job market.
- 14 • CNP's incentive goals are directly tied to metrics such as cost management,
15 customer service and safety.
- 16 • The disallowance of incentive compensation expenses could produce
17 unintended consequences that decrease the level of service provided to
18 CenterPoint Houston's customers (via less qualified and/or motivated
19 employees), while increasing the total cost of services provided via lower
20 productivity.

21 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

22 **A.** Yes, it does.



John J. Reed
Chairman and Chief Executive Officer

John J. Reed is a financial and economic consultant with more than 42 years of experience in the energy industry. Mr. Reed has also been the CEO of an NASD member securities firm, and Co-CEO of the nation's largest publicly traded management consulting firm (NYSE: NCI). He has provided advisory services in the areas of mergers and acquisitions, asset divestitures and purchases, strategic planning, project finance, corporate valuation, energy market analysis, rate and regulatory matters and energy contract negotiations to clients across North and Central America. Mr. Reed's comprehensive experience includes the development and implementation of nuclear, fossil, and hydroelectric generation divestiture programs with an aggregate valuation in excess of \$20 billion. Mr. Reed has also provided expert testimony on financial and economic matters on more than 400 occasions before the FERC, Canadian regulatory agencies, state utility regulatory agencies, various state and federal courts, and before arbitration panels in the United States and Canada. After graduation from the Wharton School of the University of Pennsylvania, Mr. Reed joined Southern California Gas Company, where he worked in the regulatory and financial groups, leaving the firm as Chief Economist in 1981. He served as executive and consultant with Stone & Webster Management Consulting and R.J. Rudden Associates prior to forming REED Consulting Group (RCG) in 1988. RCG was acquired by Navigant Consulting in 1997, where Mr. Reed served as an executive until leaving Navigant to join Concentric as Chairman and Chief Executive Officer.

REPRESENTATIVE PROJECT EXPERIENCE

Executive Management

As an executive-level consultant, worked with CEOs, CFOs, other senior officers, and Boards of Directors of many of North America's top electric and gas utilities, as well as with senior political leaders of the U.S. and Canada on numerous engagements over the past 25 years. Directed merger, acquisition, divestiture, and project development engagements for utilities, pipelines and electric generation companies, repositioned several electric and gas utilities as pure distributors through a series of regulatory, financial, and legislative initiatives, and helped to develop and execute several "roll-up" or market aggregation strategies for companies seeking to achieve substantial scale in energy distribution, generation, transmission, and marketing.

Financial and Economic Advisory Services

Retained by many of the nation's leading energy companies and financial institutions for services relating to the purchase, sale or development of new enterprises. These projects included major new gas pipeline projects, gas storage projects, several non-utility generation projects, the purchase and sale of project development and gas marketing firms, and utility acquisitions. Specific services provided include the development of corporate expansion plans, review of acquisition candidates, establishment of divestiture standards, due diligence on acquisitions or financing, market entry or expansion studies, competitive assessments, project financing studies, and negotiations relating to these transactions.



Litigation Support and Expert Testimony

Provided expert testimony on more than 400 occasions in administrative and civil proceedings on a wide range of energy and economic issues. Clients in these matters have included gas distribution utilities, gas pipelines, gas producers, oil producers, electric utilities, large energy consumers, governmental and regulatory agencies, trade associations, independent energy project developers, engineering firms, and gas and power marketers. Testimony has focused on issues ranging from broad regulatory and economic policy to virtually all elements of the utility ratemaking process. Also frequently testified regarding energy contract interpretation, accepted energy industry practices, horizontal and vertical market power, quantification of damages, and management prudence. Has been active in regulatory contract and litigation matters on virtually all interstate pipeline systems serving the U.S. Northeast, Mid-Atlantic, Midwest, and Pacific regions.

Also served on FERC Commissioner Terzic's Task Force on Competition, which conducted an industry-wide investigation into the levels of and means of encouraging competition in U.S. natural gas markets and served on a "Blue Ribbon" panel established by the Province of New Brunswick regarding the future of natural gas distribution service in that province.

Resource Procurement, Contracting and Analysis

On behalf of gas distributors, gas pipelines, gas producers, electric utilities, and independent energy project developers, personally managed or participated in the negotiation, drafting, and regulatory support of hundreds of energy contracts, including the largest gas contracts in North America, electric contracts representing billions of dollars, pipeline and storage contracts, and facility leases.

These efforts have resulted in bringing large new energy projects to market across North America, the creation of hundreds of millions of dollars in savings through contract renegotiation, and the regulatory approval of a number of highly contested energy contracts.

Strategic Planning and Utility Restructuring

Acted as a leading participant in the restructuring of the natural gas and electric utility industries over the past fifteen years, as an adviser to local distribution companies, pipelines, electric utilities, and independent energy project developers. In the recent past, provided services to most of the top 50 utilities and energy marketers across North America. Managed projects that frequently included the redevelopment of strategic plans, corporate reorganizations, the development of multi-year regulatory and legislative agendas, merger, acquisition and divestiture strategies, and the development of market entry strategies. Developed and supported merchant function exit strategies, marketing affiliate strategies, and detailed plans for the functional business units of many of North America's leading utilities.

PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (2002 - Present)

Chairman and Chief Executive Officer

CE Capital Advisors (2004 - Present)

Chairman, President, and Chief Executive Officer



Navigant Consulting, Inc. (1997 – 2002)

President, Navigant Energy Capital (2000 – 2002)

Executive Director (2000 – 2002)

Co-Chief Executive Officer, Vice Chairman (1999 – 2000)

Executive Managing Director (1998 – 1999)

President, REED Consulting Group, Inc. (1997 – 1998)

REED Consulting Group (1988 – 1997)

Chairman, President and Chief Executive Officer

R.J. Rudden Associates, Inc. (1983 – 1988)

Vice President

Stone & Webster Management Consultants, Inc. (1981 – 1983)

Senior Consultant

Consultant

Southern California Gas Company (1976 – 1981)

Corporate Economist

Financial Analyst

Treasury Analyst

EDUCATION AND CERTIFICATION

B.S., Economics and Finance, Wharton School, University of Pennsylvania, 1976

Licensed Securities Professional: NASD Series 7, 63, 24, 79 and 99 Licenses

BOARDS OF DIRECTORS (PAST AND PRESENT)

Concentric Energy Advisors, Inc.

Navigant Consulting, Inc.

Navigant Energy Capital

Nukem, Inc.

New England Gas Association

R. J. Rudden Associates

REED Consulting Group



AFFILIATIONS

American Gas Association

Energy Bar Association

Guild of Gas Managers

International Association of Energy Economists

Northeast Gas Association

Society of Gas Lighters

Society of Utility and Regulatory Financial Analysts

ARTICLES AND PUBLICATIONS

"Maximizing U.S. federal loan guarantees for new nuclear energy," *Bulletin of the Atomic Scientists* (with John C. Slocum), July 29, 2009

"Smart Decoupling – Dealing with unfunded mandates in performance-based ratemaking," *Public Utilities Fortnightly*, May 2012



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Alaska Regulatory Commission				
Chugach Electric	12/86	Chugach Electric	Docket No. U-86-11	Cost Allocation
Chugach Electric	5/87	Enstar Natural Gas Company	Docket No. U-87-2	Tariff Design
Chugach Electric	12/87	Enstar Natural Gas Company	Docket No. U-87-42	Gas Transportation
Chugach Electric	11/87 2/88	Chugach Electric	Docket No. U-87-35	Cost of Capital
Anchorage Municipal Light & Power	9/17	Anchorage Municipal Light & Power	Docket No. U-16-094 Docket No. U-17-008	Project Prudence
Alberta Utilities Commission				
Alberta Utilities (AltaLink, EPCOR, ATCO, ENMAX, FortisAlberta, AltaGas)	1/13	Alberta Utilities	Application 1566373, Proceeding ID 20	Stranded Costs
Arizona Corporation Commission				
Tucson Electric Power	7/12	Tucson Electric Power	Docket No. E- 01933A-12-0291	Cost of Capital
UNS Energy and Fortis Inc.	1/14	UNS Energy, Fortis Inc.	Docket No. E- 04230A-00011 and Docket No. E- 01933A-14-0011	Merger
California Energy Commission				
Southern California Gas Co.	8/80	Southern California Gas Co.	Docket No. 80-BR-3	Gas Price Forecasting
California Public Utility Commission				
Southern California Gas Co.	3/80	Southern California Gas Co.	TY 1981 G.R.C.	Cost of Service, Inflation
Pacific Gas Transmission Co.	10/91 11/91	Pacific Gas & Electric Co.	App. 89-04-033	Rate Design
Pacific Gas Transmission Co.	7/92	Southern California Gas Co.	A. 92-04-031	Rate Design
Colorado Public Utilities Commission				
AMAX Molybdenum	2/90	Commission Rulemaking	Docket No. 89R-702G	Gas Transportation



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
AMAX Molybdenum	11/90	Commission Rulemaking	Docket No. 90R-508G	Gas Transportation
Xcel Energy	8/04	Xcel Energy	Docket No. 031-134E	Cost of Debt
Public Service Company of Colorado	6/17	Public Service Company of Colorado	Docket No. 17AL-0363G	Return on Equity (Gas)
CT Dept. of Public Utilities Control				
Connecticut Natural Gas	12/88	Connecticut Natural Gas	Docket No. 88-08-15	Gas Purchasing Practices
United Illuminating	3/99	United Illuminating	Docket No. 99-03-04	Nuclear Plant Valuation
Southern Connecticut Gas	2/04	Southern Connecticut Gas	Docket No. 00-12-08	Gas Purchasing Practices
Southern Connecticut Gas	4/05	Southern Connecticut Gas	Docket No. 05-03-17	LNG/Trunkline
Southern Connecticut Gas	5/06	Southern Connecticut Gas	Docket No. 05-03-17PH01	LNG/Trunkline
Southern Connecticut Gas	8/08	Southern Connecticut Gas	Docket No. 06-05-04	Peaking Service Agreement
District of Columbia PSC				
Potomac Electric Power Company	3/99 5/99 7/99	Potomac Electric Power Company	Docket No. 945	Divestiture of Gen. Assets & Purchase Power Contracts
AltaGas Ltd./WGL Holdings	4/17 8/17 10/17	AltaGas Ltd./WGL Holdings	Docket No. 1142	Merger Standards, Public Interest Standard
Federal Energy Regulatory Commission				
Safe Harbor Water Power Corp.	8/82	Safe Harbor Water Power Corp.		Wholesale Electric Rate Increase
Western Gas Interstate Company	5/84	Western Gas Interstate Company	Docket No. RP84-77	Load Forecast Working Capital
Southern Union Gas	4/87 5/87	El Paso Natural Gas Company	Docket No. RP87-16-000	Take-or-Pay Costs
Connecticut Natural Gas	11/87	Penn-York Energy Corporation	Docket No. RP87-78-000	Cost Allocation/Rate Design
AMAX Magnesium	12/88 1/89	Questar Pipeline Company	Docket No. RP88-93-000	Cost Allocation/Rate Design



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Western Gas Interstate Company	6/89	Western Gas Interstate Company	Docket No. RP89-179-000	Cost Allocation/Rate Design, Open-Access Transportation
Associated CD Customers	12/89	CNG Transmission	Docket No. RP88-211-000	Cost Allocation/Rate Design
Utah Industrial Group	9/90	Questar Pipeline Company	Docket No. RP88-93-000, Phase II	Cost Allocation/Rate Design
Iroquois Gas Trans. System	8/90	Iroquois Gas Transmission System	Docket No. CP89-634-000/001; CP89-815-000	Gas Markets, Rate Design, Cost of Capital, Capital Structure
Boston Edison Company	1/91	Boston Edison Company	Docket No. ER91-243-000	Electric Generation Markets
Cincinnati Gas and Electric Co., Union Light, Heat and Power Company, Lawrenceburg Gas Company	7/91	Texas Gas Transmission Corp.	Docket No. RP90-104-000, RP88-115-000, RP90-192-000	Cost Allocation, Rate Design, Comparability of Service
Ocean State Power II	7/91	Ocean State Power II	ER89-563-000	Competitive Market Analysis, Self-dealing
Brooklyn Union/PSE&G	7/91	Texas Eastern	RP88-67, et al	Market Power, Comparability of Service
Northern Distributor Group	9/92 11/92	Northern Natural Gas Company	RP92-1-000, et al	Cost of Service
Canadian Association of Petroleum Producers and Alberta Pet. Marketing Comm.	10/92 7/97	Lakehead Pipe Line Co. L.P.	IS92-27-000	Cost Allocation, Rate Design
Colonial Gas, Providence Gas	7/93 8/93	Algonquin Gas Transmission	RP93-14	Cost Allocation, Rate Design
Iroquois Gas Transmission	94	Iroquois Gas Transmission	RP94-72-000	Cost of Service, Rate Design
Transco Customer Group	1/94	Transcontinental Gas Pipeline Corporation	Docket No. RP92-137-000	Rate Design, Firm to Wellhead
Pacific Gas Transmission	2/94 3/95	Pacific Gas Transmission	Docket No. RP94-149-000	Rolled-In vs. Incremental Rates, Rate Design



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Tennessee GSR Group	1/95 3/95 1/96	Tennessee Gas Pipeline Company	Docket Nos. RP93-151-000, RP94-39-000, RP94-197-000, RP94-309-000	GSR Costs
PG&E and SoCal Gas	8/96 9/96	El Paso Natural Gas Company	RP92-18-000	Stranded Costs
Iroquois Gas Transmission System, L.P.	97	Iroquois Gas Transmission System, L.P.	RP97-126-000	Cost of Service, Rate Design
BEC Energy - Commonwealth Energy System	2/99	Boston Edison Company/ Commonwealth Energy System	EC99-33-000	Market Power Analysis - Merger
Central Hudson Gas & Electric, Consolidated Co. of New York, Niagara Mohawk Power Corporation, Dynegy Power Inc.	10/00	Central Hudson Gas & Electric, Consolidated Co. of New York, Niagara Mohawk Power Corporation, Dynegy Power Inc.	Docket No. EC01-7-000	Market Power 203/205 Filing
Wyckoff Gas Storage	12/02	Wyckoff Gas Storage	CP03-33-000	Need for Storage Project
Indicated Shippers/Producers	10/03	Northern Natural Gas	Docket No. RP98-39-029	Ad Valorem Tax Treatment
Maritimes & Northeast Pipeline	6/04	Maritimes & Northeast Pipeline	Docket No. RP04-360-000	Rolled-In Rates
ISO New England	8/04 2/05	ISO New England	Docket No. ER03-563-030	Cost of New Entry
Transwestern Pipeline Company, LLC	9/06	Transwestern Pipeline Company, LLC	Docket No. RP06-614-000	Business Risk
Portland Natural Gas Transmission System	6/08	Portland Natural Gas Transmission System	Docket No. RP08-306-000	Market Assessment, Natural Gas Transportation, Rate Setting
Portland Natural Gas Transmission System	5/10 3/11 4/11	Portland Natural Gas Transmission System	Docket No. RP10-729-000	Business Risks, Extraordinary and Non-recurring Events Pertaining to Discretionary Revenues



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Morris Energy	7/10	Morris Energy	Docket No. RP10-79-000	Impact of Preferential Rate
Gulf South Pipeline	10/14	Gulf South Pipeline	Docket No. RP15-65-000	Business Risk, Rate Design
BNP Paribas Energy Trading, GP South Jersey Resource Group, LLC	2/15	Transcontinental Gas Pipe Line Corporation	Docket No. RP06-569-008 and RP07-376-005	Regulatory Policy, Incremental Rates, Stacked Rate
Tallgrass Interstate Gas Transmission, LLC	10/15 12/15	Tallgrass Interstate Gas Transmission, LLC	Docket No. RP16-137-000	Market Assessment, Rate Design, Rolled-in Rate Treatment
Florida Public Service Commission				
Florida Power and Light Co.	10/07	Florida Power & Light Co.	Docket No. 070650-EI	Need for New Nuclear Plant
Florida Power and Light Co.	5/08	Florida Power & Light Co.	Docket No. 080009-EI	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/09 8/09	Florida Power & Light Co.	Docket No. 080677-EI	Benchmarking in Support of ROE
Florida Power and Light Co.	3/09 5/09 8/09	Florida Power & Light Co.	Docket No. 090009-EI	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/10 5/10 8/10	Florida Power & Light Co.	Docket No. 100009-EI	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/11 7/11	Florida Power & Light Co.	Docket No. 110009-EI	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/12 7/12	Florida Power & Light Co.	Docket No. 120009-EI	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/12 8/12	Florida Power & Light Co.	Docket No. 120015-EI	Benchmarking in Support of ROE
Florida Power and Light Co.	3/13 7/13	Florida Power & Light Co.	Docket No. 130009	New Nuclear Cost Recovery, Prudence



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Florida Power and Light Co.	3/14	Florida Power & Light Co.	Docket No. 140009	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	3/15 7/15	Florida Power & Light Co.	Docket No. 150009	New Nuclear Cost Recovery, Prudence
Florida Power and Light Co.	10/15	Florida Power and Light Co.	Docket No. 150001	Recovery of Replacement Power Costs
Florida Power and Light Co.	3/16	Florida Power & Light Co.	Docket No. 160021-EI	Benchmarking in Support of ROE
Florida Senate Committee on Communication, Energy and Utilities				
Florida Power and Light Co.	2/09	Florida Power & Light Co.		Securitization
Hawai'i Public Utility Commission				
Hawaiian Electric Light Company, Inc.	6/00	Hawaiian Electric Light Company, Inc.	Docket No. 99-0207	Standby Charge
NextEra Energy, Inc. Hawaiian Electric Companies	4/15 8/15 10/15	Hawaiian Electric Company, Inc.; Hawaii Electric Light Company, Inc., Maui Electric Company, Ltd., NextEra Energy, Inc.	Docket No. 2015-0022	Merger Application
Idaho Public Utilities Commission				
Hydro One Limited and Avista Corporation	9/18 11/18	Hydro One Limited and Avista Corporation	Case No. AVU-E-17-09 Case No. AVU-G-17-05	Governance, Financial Integrity and Ring-fencing Merger Commitments
Illinois Commerce Commission				
Renewables Suppliers (Algonquin Power Co., EDP Renewables North America, Invenergy, NextEra Energy Resources)	3/14	Renewables Suppliers	Docket No. 13-0546	Application for Rehearing and Reconsideration, Long-term Purchase Power Agreements
WE Energies Corporation	8/14 12/14 2/15	WE Energies/Integritys	Docket No. 14-0496	Merger Application



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Indiana Utility Regulatory Commission				
Northern Indiana Public Service Company	10/01	Northern Indiana Public Service Company	Cause No. 41746	Valuation of Electric Generating Facilities
Northern Indiana Public Service Company	1/08 3/08	Northern Indiana Public Service Company	Cause No. 43396	Asset Valuation
Northern Indiana Public Service Company	8/08	Northern Indiana Public Service Company	Cause No. 43526	Fair Market Value Assessment
Indianapolis Power & Light Company	12/14	Indianapolis Power & Light Company	Cause No. 44576	Asset Valuation
Indianapolis Power & Light Company	12/16	Indianapolis Power & Light Company	Cause No. 44893	Rate Recovery for New Plant Additions, Valuation of Electric Generating Facilities
Iowa Utilities Board				
Interstate Power and Light	7/05	Interstate Power and Light and FPL Energy Duane Arnold, LLC	Docket No. SPU-05-15	Sale of Nuclear Plant
Interstate Power and Light	5/07	City of Everly, Iowa	Docket No. SPU-06-5	Municipalization
Interstate Power and Light	5/07	City of Kalona, Iowa	Docket No. SPU-06-6	Municipalization
Interstate Power and Light	5/07	City of Wellman, Iowa	Docket No. SPU-06-10	Municipalization
Interstate Power and Light	5/07	City of Terril, Iowa	Docket No. SPU-06-8	Municipalization
Interstate Power and Light	5/07	City of Rolfe, Iowa	Docket No. SPU-06-7	Municipalization
Kansas Corporation Commission				
Great Plains Energy Kansas City Power and Light Company	1/17	Great Plains Energy, Kansas City Power & Light Company, and Westar Energy	Docket No. 16-KCPE-593-ACQ	Merger Standards, Acquisition Premium, Ring-Fencing, Public Interest Standard
Great Plains Energy Kansas City Power and Light Company	8/17 2/18	Great Plains Energy, Kansas City Power & Light Company, and Westar Energy	Docket No. 18-KCPE-095-MER	Merger Standards, Transaction Value, Merger Benefits, Ring-Fencing,



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Maine Public Utility Commission				
Northern Utilities	5/96	Granite State and PNGTS	Docket No. 95-480, 95-481	Transportation Service and PBR
Maryland Public Service Commission				
Eastalco Aluminum	3/82	Potomac Edison	Docket No. 7604	Cost Allocation
Potomac Electric Power Company	8/99	Potomac Electric Power Company	Docket No. 8796	Stranded Cost & Price Protection
AltaGas Ltd./WGL Holdings	4/17 9/17 1/18 2/18	AltaGas Ltd./WGL Holdings	Docket No. 9449	Merger Standards, Public Interest Standard
Mass. Department of Public Utilities				
Haverhill Gas	5/82	Haverhill Gas	Docket No. DPU #1115	Cost of Capital
New England Energy Group	1/87	Commission Investigation		Gas Transportation Rates
Energy Consortium of Mass.	9/87	Commonwealth Gas Company	Docket No. DPU-87-122	Cost Allocation, Rate Design
Mass. Institute of Technology	12/88	Middleton Municipal Light	DPU #88-91	Cost Allocation, Rate Design
Energy Consortium of Mass.	3/89	Boston Gas	DPU #88-67	Rate Design
PG&E Bechtel Generating Co./ Constellation Holdings	10/91	Commission Investigation	DPU #91-131	Valuation of Environmental Externalities
Coalition of Non-Utility Generators		Cambridge Electric Light Co. & Commonwealth Electric Co.	DPU 91-234 EFSC 91-4	Integrated Resource Management
The Berkshire Gas Company Essex County Gas Company Fitchburg Gas and Elec. Light Co.	5/92	The Berkshire Gas Company Essex County Gas Company Fitchburg Gas & Elec. Light Co.	DPU #92-154	Gas Purchase Contract Approval
Boston Edison Company	7/92	Boston Edison	DPU #92-130	Least Cost Planning
Boston Edison Company	7/92	The Williams/Newcorp Generating Co.	DPU #92-146	RFP Evaluation
Boston Edison Company	7/92	West Lynn Cogeneration	DPU #92-142	RFP Evaluation



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Boston Edison Company	7/92	L'Energia Corp.	DPU #92-167	RFP Evaluation
Boston Edison Company	7/92	DLS Energy, Inc.	DPU #92-153	RFP Evaluation
Boston Edison Company	7/92	CMS Generation Co.	DPU #92-166	RFP Evaluation
Boston Edison Company	7/92	Concord Energy	DPU #92-144	RFP Evaluation
The Berkshire Gas Company Colonial Gas Company Essex County Gas Company Fitchburg Gas and Electric Company	11/93	The Berkshire Gas Company Colonial Gas Company Essex County Gas Company Fitchburg Gas and Electric Co.	DPU #93-187	Gas Purchase Contract Approval
Bay State Gas Company	10/93	Bay State Gas Company	Docket No. 93-129	Integrated Resource Planning
Boston Edison Company	94	Boston Edison	DPU #94-49	Surplus Capacity
Hudson Light & Power Department	4/95	Hudson Light & Power Dept.	DPU #94-176	Stranded Costs
Essex County Gas Company	5/96	Essex County Gas Company	Docket No. 96-70	Unbundled Rates
Boston Edison Company	8/97	Boston Edison Company	D.P.U. No. 97-63	Holding Company Corporate Structure
Berkshire Gas Company	6/98	Berkshire Gas Mergeco Gas Co.	D.T.E. 98-87	Merger Approval
Eastern Edison Company	8/98	Montaup Electric Company	D.T.E. 98-83	Marketing for Divestiture of its Generation Business
Boston Edison Company	98	Boston Edison Company	D.T.E. 97-113	Fossil Generation Divestiture
Boston Edison Company	2/99	Boston Edison Company	D.T.E. 98-119	Nuclear Generation Divestiture
Eastern Edison Company	12/98	Montaup Electric Company	D.T.E. 99-9	Sale of Nuclear Plant
NStar	9/07 12/07	NStar, Bay State Gas, Fitchburg G&E, NE Gas, W. MA Electric	DPU 07-50	Decoupling, Risk
NStar	6/11	NStar, Northeast Utilities	DPU 10-170	Merger Approval
Town of Milford	1/19	Milford Water Company	DPU 18-60	Valuation Analysis
Mass. Energy Facilities Siting Council				
Mass. Institute of Technology	1/89	M.M.W.E.C.	EFSC-88-1	Least-Cost Planning
Boston Edison Company	9/90	Boston Edison	EFSC-90-12	Electric Generation Markets



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Silver City Energy Ltd. Partnership	11/91	Silver City Energy	D.P.U. 91-100	State Policies, Need for Facility
Michigan Public Service Commission				
Detroit Edison Company	9/98	Detroit Edison Company	Case No. U-11726	Market Value of Generation Assets
Consumers Energy Company	8/06 1/07	Consumers Energy Company	Case No. U-14992	Sale of Nuclear Plant
WE Energies	12/11	Wisconsin Electric Power Co	Case No. U-16830	Economic Benefits, Prudence
Consumer Energy Company	7/13	Consumers Energy Company	Case No. U-17429	Certificate of Need, Integrated Resource Plan
WE Energies	8/14 3/15	WE Energies/Integrus	Case No. U-17682	Merger Application
Minnesota Public Utilities Commission				
Xcel Energy/No. States Power	9/04	Xcel Energy/No. States Power	Docket No. G002/GR-04-1511	NRG Impacts
Interstate Power and Light	8/05	Interstate Power and Light and FPL Energy Duane Arnold, LLC	Docket No. E001/PA-05-1272	Sale of Nuclear Plant
Northern States Power Company d/b/a Xcel Energy	11/05	Northern States Power Company	Docket No. E002/GR-05-1428	NRG Impacts on Debt Costs
Northern States Power Company d/b/a Xcel Energy	09/06 10/06 11/06	NSP v. Excelsior	Docket No. E6472/M-05-1993	PPA, Financial Impacts
Northern States Power Company d/b/a Xcel Energy	11/06	Northern States Power Company	Docket No. G002/GR-06-1429	Return on Equity
Northern States Power	11/08 05/09	Northern States Power Company	Docket No. E002/GR-08-1065	Return on Equity
Northern States Power	11/09 6/10	Northern States Power Company	Docket No. G002/GR-09-1153	Return on Equity
Northern States Power	11/10 5/11	Northern States Power Company	Docket No. E002/GR-10-971	Return on Equity



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Northern States Power Company d/b/a Xcel Energy	1/16	Northern States Power Company	Docket No. E002/GR-15-826	Industry Perspective
Missouri House Committee on Energy and the Environment				
Ameren Missouri	3/16	Ameren Missouri	HB 2816	Performance Based Ratemaking
Missouri Public Service Commission				
Missouri Gas Energy	1/03 04/03	Missouri Gas Energy	Case No. GR-2001-382	Gas Purchasing Practices, Prudence
Aquila Networks	2/04	Aquila-MPS, Aquila L&P	Case Nos. ER-2004-0034 HR-2004-0024	Cost of Capital, Capital Structure
Aquila Networks	2/04	Aquila-MPS, Aquila L&P	Case No. GR-2004-0072	Cost of Capital, Capital Structure
Missouri Gas Energy	11/05 2/06 7/06	Missouri Gas Energy	Case Nos. GR-2002-348 GR-2003-0330	Capacity Planning
Missouri Gas Energy	11/10 1/11	KCP&L	Case No. ER-2010-0355	Natural Gas DSM
Missouri Gas Energy	11/10 1/11	KCP&L GMO	Case No. ER-2010-0356	Natural Gas DSM
Laclede Gas Company	5/11	Laclede Gas Company	Case No. CG-2011-0098	Affiliate Pricing Standards
Union Electric Company d/b/a Ameren Missouri	2/12 8/12	Union Electric Company	Case No. ER-2012-0166	ROE, Earnings Attrition, Regulatory Lag
Union Electric Company d/b/a Ameren Missouri	6/14	Noranda Aluminum Inc.	Case No. EC-2014-0223	Ratemaking, Regulatory and Economic Policy
Union Electric Company d/b/a Ameren Missouri	1/15 2/15	Union Electric Company	Case No. ER-2014-0258	Revenue Requirements, Ratemaking Policies
Great Plains Energy Kansas City Power and Light Company	8/17 2/18 3/18	Great Plains Energy, Kansas City Power & Light Company, and Westar Energy	Docket No. EM-2018-0012	Merger Standards, Transaction Value, Merger Benefits, Ring-Fencing,



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Missouri Senate Committee on Commerce, Consumer Protection, Energy and the Environment				
Ameren Missouri	3/16	Ameren Missouri	SB 1028	Performance Based Ratemaking
Montana Public Service Commission				
Great Falls Gas Company	10/82	Great Falls Gas Company	Docket No. 82-4-25	Gas Rate Adjustment Clause
National Energy Board of Canada				
Alberta-Northeast	2/87	Alberta Northeast Gas Export Project	Docket No. GH-1-87	Gas Export Markets
Alberta-Northeast	11/87	TransCanada Pipeline	Docket No. GH-2-87	Gas Export Markets
Alberta-Northeast	1/90	TransCanada Pipeline	Docket No. GH-5-89	Gas Export Markets
Independent Petroleum Association of Canada	1/92	Interprovincial Pipe Line, Inc.	RH-2-91	Pipeline Valuation, Toll
The Canadian Association of Petroleum Producers	11/93	Transmountain Pipe Line	RH-1-93	Cost of Capital
Alliance Pipeline L.P.	6/97	Alliance Pipeline L.P.	GH-3-97	Market Study
Maritimes & Northeast Pipeline	97	Sable Offshore Energy Project	GH-6-96	Market Study
Maritimes & Northeast Pipeline	2/02	Maritimes & Northeast Pipeline	GH-3-2002	Natural Gas Demand Analysis
TransCanada Pipelines	8/04	TransCanada Pipelines	RH-3-2004	Toll Design
Brunswick Pipeline	5/06	Brunswick Pipeline	GH-1-2006	Market Study
TransCanada Pipelines Ltd.	12/06 4/07	TransCanada Pipelines Ltd.: Gros Cacouna Receipt Point Application	RH-1-2007	Toll Design
Repsol Energy Canada Ltd	3/08	Repsol Energy Canada Ltd	GH-1-2008	Market Study
Maritimes & Northeast Pipeline	7/10	Maritimes & Northeast Pipeline	RH-4-2010	Regulatory Policy, Toll Development
TransCanada Pipelines Ltd	9/11 5/12	TransCanada Pipelines Ltd.	RH-3-2011	Business Services and Tolls Application
Trans Mountain Pipeline LLC	6/12 1/13	Trans Mountain Pipeline LLC	RH-1-2012	Toll Design
TransCanada Pipelines Ltd	8/13	TransCanada Pipelines Ltd	RE-001-2013	Toll Design



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
NOVA Gas Transmission Ltd	11/13	NOVA Gas Transmission Ltd	OF-Fac-Gas-N081-2013-10 01	Toll Design
Trans Mountain Pipeline LLC	12/13	Trans Mountain Pipeline LLC	OF-Fac-Oil-T260-2013-03 01	Economic and Financial Feasibility, Project Benefits
Energy East Pipeline Ltd.	10/14	Energy East Pipeline	Of-Fac-Oil-E266-2014-01 02	Economic and Financial Feasibility, Project Benefits
NOVA Gas Transmission Ltd	5/16	NOVA Gas Transmission Ltd	GH-003-2015	Certificate of Public Convenience and Necessity
TransCanada PipeLines Limited	4/17 9/17	TransCanada PipeLines Limited	Dawn LTFP Service Application	Public Interest, Toll Design
NOVA Gas Transmission Ltd	10/17	NOVA Gas Transmission Ltd	MH-031-2017	Toll Design
New Brunswick Energy and Utilities Board				
Atlantic Wallboard/JD Irving Co	1/08	Enbridge Gas New Brunswick	MCTN #298600	Rate Setting for EGNB
Atlantic Wallboard/Flakeboard	9/09 6/10 7/10	Enbridge Gas New Brunswick	NBEUB 2009-017	Rate Setting for EGNB
Atlantic Wallboard/Flakeboard	1/14	Enbridge Gas New Brunswick	NBEUB Matter 225	Rate Setting for EGNB
NH Public Utilities Commission				
Bus & Industry Association	6/89	P.S. Co. of New Hampshire	Docket No. DR89-091	Fuel Costs
Bus & Industry Association	5/90	Northeast Utilities	Docket No. DR89-244	Merger & Acquisition Issues
Eastern Utilities Associates	6/90	Eastern Utilities Associates	Docket No. DF89-085	Merger & Acquisition Issues
EnergyNorth Natural Gas	12/90	EnergyNorth Natural Gas	Docket No. DE90-166	Gas Purchasing Practices
EnergyNorth Natural Gas	7/90	EnergyNorth Natural Gas	Docket No. DR90-187	Special Contracts, Discounted Rates



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Northern Utilities, Inc.	12/91	Commission Investigation	Docket No. DR91-172	Generic Discounted Rates
Public Service Co. of New Hampshire	7/14	Public Service Co. of NH	Docket No. DE 11-250	Prudence
Public Service Co. of New Hampshire	7/15 11/15	Public Service Co. of NH	Docket No. 14-238	Restructuring and Rate Stabilization
New Jersey Board of Public Utilities				
Hilton/Golden Nugget	12/83	Atlantic Electric	B.P.U. 832-154	Line Extension Policies
Golden Nugget	3/87	Atlantic Electric	B.P.U. No. 837-658	Line Extension Policies
New Jersey Natural Gas	2/89	New Jersey Natural Gas	B.P.U. GR89030335J	Cost Allocation, Rate Design
New Jersey Natural Gas	1/91	New Jersey Natural Gas	B.P.U. GR90080786J	Cost Allocation, Rate Design
New Jersey Natural Gas	8/91	New Jersey Natural Gas	B.P.U. GR91081393J	Rate Design, Weather Normalization Clause
New Jersey Natural Gas	4/93	New Jersey Natural Gas	B.P.U. GR93040114J	Cost Allocation, Rate Design
South Jersey Gas	4/94	South Jersey Gas	BRC Dock No. GR080334	Revised Levelized Gas Adjustment
New Jersey Utilities Association	9/96	Commission Investigation	BPU AX96070530	PBOP Cost Recovery
Morris Energy Group	11/09	Public Service Electric & Gas	BPU GR 09050422	Discriminatory Rates
New Jersey American Water Co.	4/10	New Jersey American Water Co.	BPU WR 1040260	Tariff Rates and Revisions
Electric Customer Group	1/11	Generic Stakeholder Proceeding	BPU GR10100761 and ER10100762	Natural Gas Ratemaking Standards and pricing
New Mexico Public Service Commission				
Gas Company of New Mexico	11/83	Public Service Co. of New Mexico	Docket No. 1835	Cost Allocation, Rate Design
Southwestern Public Service Co., New Mexico	12/12	SPS New Mexico	Case No. 12-00350-UT	Rate Case, Return on Equity



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
PNM Resources	12/13 10/14 12/14	Public Service Co. of New Mexico	Case No. 13-00390-UT	Nuclear Valuation, In Support of Stipulation
New York State Public Service Commission				
Iroquois Gas Transmission	12/86	Iroquois Gas Transmission System	Case No. 70363	Gas Markets
Brooklyn Union Gas Company	8/95	Brooklyn Union Gas Company	Case No. 95-6-0761	Panel on Industry Directions
Central Hudson, ConEdison and Niagara Mohawk	9/00	Central Hudson, ConEdison and Niagara Mohawk	Case No. 96-E-0909 Case No. 96-E-0897 Case No. 94-E-0098 Case No. 94-E-0099	Section 70, Approval of New Facilities
Central Hudson, New York State Electric & Gas, Rochester Gas & Electric	5/01	Joint Petition of NiMo, NYSEG, RG&E, Central Hudson, Constellation and Nine Mile Point	Case No. 01-E-0011	Section 70, Rebuttal Testimony
Rochester Gas & Electric	12/03	Rochester Gas & Electric	Case No. 03-E-1231	Sale of Nuclear Plant
Rochester Gas & Electric	1/04	Rochester Gas & Electric	Case No. 03-E-0765 Case No. 02-E-0198 Case No. 03-E-0766	Sale of Nuclear Plant; Ratemaking Treatment of Sale
Rochester Gas and Electric and NY State Electric & Gas Corp	2/10	Rochester Gas & Electric NY State Electric & Gas Corp	Case No. 09-E-0715 Case No. 09-E-0716 Case No. 09-E-0717 Case No. 09-E-0718	Depreciation Policy
National Fuel Gas Corporation	9/16 9/16	National Fuel Gas Corporation	Case No. 16-G-0257	Ring-fencing Policy
NextEra Energy Transmission New York	8/18	NextEra Energy Transmission New York	Case No. 18-T-0499	Certificate of Need for Transmission Line, Vertical Market Power
Nova Scotia Utility and Review Board				
Nova Scotia Power	9/12	Nova Scotia Power	Docket No. P-893	Audit Reply
Nova Scotia Power	8/14	Nova Scotia Power	Docket No. P-887	Audit Reply
Nova Scotia Power	5/16	Nova Scotia Power	2017-2019 Fuel Stability Plan	Used and Useful Ratemaking



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
NSP Maritime Link ("NSPML")	12/16 2/17 5/17	NSP Maritime Link ("NSPML")	NSPML Interim Cost Assessment Application	Used and Useful Ratemaking
Oklahoma Corporation Commission				
Oklahoma Natural Gas Company	6/98	Oklahoma Natural Gas Company	Case PUD No. 980000177	Storage Issues
Oklahoma Gas & Electric Company	5/05 9/05	Oklahoma Gas & Electric Company	Cause No. PUD 200500151	Prudence of McLain Acquisition
Oklahoma Gas & Electric Company	3/08	Oklahoma Gas & Electric Company	Cause No. PUD 200800086	Acquisition of Redbud Generating Facility
Oklahoma Gas & Electric Company	8/14 1/15	Oklahoma Gas & Electric Company	Cause No. PUD 201400229	Integrated Resource Plan
Ontario Energy Board				
Market Hub Partners Canada, L.P.	5/06	Natural Gas Electric Interface Roundtable	File No. EB-2005-0551	Market-based Rates for Storage
Ontario Power Generation	9/13 2/14 5/14	Ontario Power Generation	EB-2013-0321	Prudence Review of Nuclear Project Management Processes
Oregon Public Utilities Commission				
Hydro One Limited and Avista Corporation	8/18 10/18	Hydro One Limited and Avista Corporation	Docket No. UM 1897	Reasonableness and Sufficiency of the Governance, Bankruptcy, and Financial Ring-Fencing Stipulated Settlement Commitments
Pennsylvania Public Utility Commission				
ATOC	4/95	Equitrans	Docket No. R-00943272	Rate Design, Unbundling
ATOC	3/96 4/96	Equitrans	Docket No. P-00940886	Rate Design, Unbundling
Rhode Island Public Utilities Commission				
Newport Electric	7/81	Newport Electric	Docket No. 1599	Rate Attrition



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
South County Gas	9/82	South County Gas	Docket No. 1671	Cost of Capital
New England Energy Group	7/86	Providence Gas Company	Docket No. 1844	Cost Allocation, Rate Design
Providence Gas	8/88	Providence Gas Company	Docket No. 1914	Load Forecast, Least-Cost Planning
Providence Gas Company and The Valley Gas Company	1/01 3/02	Providence Gas Company and The Valley Gas Company	Docket No. 1673 and 1736	Gas Cost Mitigation Strategy
The New England Gas Company	3/03	New England Gas Company	Docket No. 3459	Cost of Capital
Texas Public Utility Commission				
Southwestern Electric	5/83	Southwestern Electric		Cost of Capital, CWIP
P.U.C. General Counsel	11/90	Texas Utilities Electric Company	Docket No. 9300	Gas Purchasing Practices, Prudence
Oncor Electric Delivery Company	8/07	Oncor Electric Delivery Company	Docket No. 34040	Regulatory Policy, Rate of Return, Return of Capital and Consolidated Tax Adjustment
Oncor Electric Delivery Company	6/08	Oncor Electric Delivery Company	Docket No.35717	Regulatory policy
Oncor Electric Delivery Company	10/08 11/08	Oncor, TCC, TNC, ETT, LCRA TSC, Sharyland, STEC, TNMP	Docket No. 35665	Competitive Renewable Energy Zone
CenterPoint Energy	6/10 10/10	CenterPoint Energy/Houston Electric	Docket No. 38339	Regulatory Policy, Risk, Consolidated Taxes
Oncor Electric Delivery Company	1/11	Oncor Electric Delivery Company	Docket No. 38929	Regulatory Policy, Risk
Cross Texas Transmission	8/12 11/12	Cross Texas Transmission	Docket No. 40604	Return on Equity
Southwestern Public Service	11/12	Southwestern Public Service	Docket No. 40824	Return on Equity
Lone Star Transmission	5/14	Lone Star Transmission	Docket No. 42469	Return on Equity, Debt, Cost of Capital
CenterPoint Energy Houston Electric, LLC	6/15	CenterPoint Energy Houston Electric, LLC	Docket No. 44572	Distribution Cost Recovery Factor



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
NextEra Energy, Inc.	10/16 2/17	Oncor Electric Delivery Company LLC, NextEra Energy	Docket No. 46238	Merger Application, Ring-fencing, Affiliate Interest, Code of Conduct
Texas Railroad Commission				
Western Gas Interstate Company	1/85	Southern Union Gas Company	Docket 5238	Cost of Service
Atmos Pipeline Texas	9/10 1/11	Atmos Pipeline Texas	GUD 10000	Ratemaking Policy, Risk
Atmos Pipeline Texas	1/17 4/17	Atmos Pipeline Texas	GUD 10580	Ratemaking Policy, ROE, Rate Design Policy
Texas State Legislature				
CenterPoint Energy	4/13	Association of Electric Companies of Texas	SB 1364	Consolidated Tax Adjustment Clause Legislation
Utah Public Service Commission				
AMAX Magnesium	1/88	Mountain Fuel Supply Company	Case No. 86-057-07	Cost Allocation, Rate Design
AMAX Magnesium	4/88	Utah P&L/Pacific P&L	Case No. 87-035-27	Merger & Acquisition
Utah Industrial Group	7/90 8/90	Mountain Fuel Supply	Case No. 89-057-15	Gas Transportation Rates
AMAX Magnesium	9/90	Utah Power & Light	Case No. 89-035-06	Energy Balancing Account
AMAX Magnesium	8/90	Utah Power & Light	Case No. 90-035-06	Electric Service Priorities
Questar Gas Company	12/07	Questar Gas Company	Docket No. 07-057- 13	Benchmarking in Support of ROE
Vermont Public Service Board				
Green Mountain Power	8/82	Green Mountain Power	Docket No. 4570	Rate Attrition
Green Mountain Power	12/97	Green Mountain Power	Docket No. 5983	Cost of Service
Green Mountain Power	7/98 9/00	Green Mountain Power	Docket No. 6107	Rate Development
Washington Utilities and Transportation Commission				



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Hydro One Limited and Avista Corporation	9/18	Hydro One Limited and Avista Corporation	Docket No. U-170970	Reasonableness and Sufficiency of the Governance, Bankruptcy, and Financial Ring-Fencing Stipulated Settlement Commitments
Wisconsin Public Service Commission				
WEC & WICOR	11/99	WEC	Docket No. 9401-YO-100 Docket No. 9402-YO-101	Approval to Acquire the Stock of WICOR
Wisconsin Electric Power Company	1/07	Wisconsin Electric Power Co.	Docket No. 6630-EI-113	Sale of Nuclear Plant
Wisconsin Electric Power Company	10/09	Wisconsin Electric Power Co.	Docket No. 6630-CE-302	CPCN Application for Wind Project
Northern States Power Wisconsin	10/13	Xcel Energy (dba Northern States Power Wisconsin)	Docket No. 4220-UR-119	Fuel Cost Adjustments
Wisconsin Electric Power Company	11/13	Wisconsin Electric Power Co.	Docket No. 6630-FR-104	Fuel Cost Adjustment
Wisconsin Gas LLC	5/14	Wisconsin Gas LLC	Docket No. 6650-CG-233	Gas Line Expansion, Reasonableness
WE Energy	8/14 1/15 3/15	WE Energy/Integrus	Docket No. 9400-YO-100	Merger Approval
Wisconsin Public Service Corporation	1/19	Madison Gas and Electric Company and Wisconsin Public Service Corporation	Docket No. 5-BS-228	Evaluation of Models Used in Resource Investment Decisions



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
American Arbitration Association				
Michael Polsky	3/91	M. Polsky vs. Indeck Energy		Corporate Valuation, Damages
ProGas Limited	7/92	ProGas Limited v. Texas Eastern		Gas Contract Arbitration
Attala Generating Company	12/03	Attala Generating Co v. Attala Energy Co.	Case No. 16-Y-198-00228-03	Power Project Valuation, Breach of Contract, Damages
Nevada Power Company	4/08	Nevada Power v. Nevada Cogeneration Assoc. #2		Power Purchase Agreement
Sensata Technologies, Inc./EMS Engineered Materials Solutions, LLC	1/11	Sensata Technologies, Inc./EMS Engineered Materials Solutions, LLC v. Pepco Energy Services	Case No. 11-198-Y-00848-10	Change in Usage Dispute, Damages
Sandy Creek Energy Associates, L.P.	9/17	Sandy Creek Energy Associates, L.P. vs. Lower Colorado River Authority	Case No. 01-16-0002-6892	Power Purchase Agreement, Analysis of Damages
Canadian Arbitration Panel				
Hydro-Québec	4/15 5/16 7/16	Hydro-Fraser et al v. Hydro-Québec		Electric Price Arbitration
Commonwealth of Massachusetts, Appellate Tax Board				
NStar Electric Company	8/14	NStar Electric Company	Docket No. F316346 Docket No. F319254	Valuation Methodology
Western Massachusetts Electric Company	2/16	Western Massachusetts Electric Company v. Board of Assessors of The City of Springfield	Docket No. 315550 Docket No. 319349	Valuation Methodology
Commonwealth of Massachusetts, Suffolk Superior Court				
John Hancock	1/84	Trinity Church v. John Hancock	C.A. No. 4452	Damages Quantification
Court of Common Pleas of Philadelphia County, Civil Division				
Sunoco Marketing & Terminals L.P.	11/16	Sunoco Marketing & Terminals, L.P. v. South Jersey Resources Group	Case No. 150302520	Damages Quantification
State of Colorado District Court, County of Garfield				



SPONSOR	DATE	CASE/APPLICANT	DOCKET No.	SUBJECT
Questar Corporation, et al	11/00	Questar Corporation, et al.	Case No. 00CV129-A	Partnership Fiduciary Duties
State of Delaware, Court of Chancery, New Castle County				
Wilmington Trust Company	11/05	Calpine Corporation vs. Bank of New York and Wilmington Trust Company	C.A. No. 1669-N	Bond Indenture Covenants
Illinois Appellate Court, Fifth Division				
Norweb, PLC	8/02	Indeck No. America v. Norweb	Docket No. 97 CH 07291	Breach of Contract, Power Plant Valuation
Independent Arbitration Panel				
Alberta Northeast Gas Limited	2/98	ProGas Ltd., Canadian Forest Oil Ltd., AEC Oil & Gas		
Ocean State Power	9/02	Ocean State Power vs. ProGas Ltd.	2001/2002 Arbitration	Gas Price Arbitration
Ocean State Power	2/03	Ocean State Power vs. ProGas Ltd.	2002/2003 Arbitration	Gas Price Arbitration
Ocean State Power	6/04	Ocean State Power vs. ProGas Ltd.	2003/2004 Arbitration	Gas Price Arbitration
Shell Canada Limited	7/05	Shell Canada Limited and Nova Scotia Power Inc.		Gas Contract Price Arbitration
International Court of Arbitration				
Wisconsin Gas Company, Inc.	2/97	Wisconsin Gas Co. vs. Pan-Alberta	Case No. 9322/CK	Contract Arbitration
Minnegasco, A Division of NorAm Energy Corp.	3/97	Minnegasco vs. Pan-Alberta	Case No. 9357/CK	Contract Arbitration
Utilicorp United Inc.	4/97	Utilicorp vs. Pan-Alberta	Case No. 9373/CK	Contract Arbitration
IES Utilities	97	IES vs. Pan-Alberta	Case No. 9374/CK	Contract Arbitration
Mitsubishi Heavy Industries, Ltd., and Mitsubishi Nuclear Energy Systems, Inc.	12/15 2/16	Southern California Edison Company, Edison Material Supply LLC, San Diego Gas & Electric Co., and the City of Riverside vs. Mitsubishi Heavy Industries, Ltd., and Mitsubishi Nuclear Energy Systems, Inc.	Case No. 19784/AGF/RD	Damages Arising Under a Nuclear Power Equipment Contract



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
International Chamber of Commerce				
Senvion GmbH	4/17	Senvion GmbH v. EDF Renewable Energy, Inc.	Case No. 01-15-0005-4590	Breach-Related Damages, Unfair Competition, Unjust Enrichment
Senvion GmbH	9/17	Senvion GmbH v. EEN CA Lac Alfred Limited Partnership, et al.	Case No. 21535	Breach-Related Damages
Senvion GmbH	12/17	Senvion GmbH v. EEN CA Massif du Sud Limited Partnership, et al.	Case No. 21536	Breach-Related Damages
State of New Jersey, Mercer County Superior Court				
Transamerica Corp., et al.	7/07 10/07	IMO Industries Inc. vs. Transamerica Corp., et al.	Docket No. L-2140-03	Breach-Related Damages, Enterprise Value
State of New York, Nassau County Supreme Court				
Steel Los III, LP	6/08	Steel Los II, LP & Associated Brook, Corp v. Power Authority of State of NY	Index No. 5662/05	Property Seizure
Province of Alberta, Court of Queen's Bench				
Alberta Northeast Gas Limited	5/07	Cargill Gas Marketing Ltd. vs. Alberta Northeast Gas Limited	Action No. 0501-03291	Gas Contracting Practices
Quebec Superior Court, District of Gaspé				
Senvion Canada and Senvion GmbH	2/19	Senvion Canada and Senvion GmbH v. Suspendem Rope Access		Breach-Related Damages, Reimbursement of Liquidated Damages, Reimbursement of Scheduled Maintenance Penalties
State of New Hampshire, Judicial Court-Rockingham Superior Court				
Public Service Company of New Hampshire d/b/a Eversource Energy	10/18	Public Service Company of New Hampshire d/b/a Eversource Energy v. City of Portsmouth	Case No. 218-2016-CV-00899 Case No. 218-2017-CV-00917	Valuation of Transmission and Distribution Assets
State of Rhode Island, Providence City Court				
Aquidneck Energy	5/87	Laroche vs. Newport		Least-Cost Planning



SPONSOR	DATE	CASE/APPLICANT	DOCKET No.	SUBJECT
State of Texas, Hutchinson County Court				
Western Gas Interstate	5/85	State of Texas vs. Western Gas Interstate Co.	Case No. 14,843	Cost of Service
State of Utah, Third District Court				
PacifiCorp & Holme, Roberts & Owen, LLP	1/07	USA Power & Spring Canyon Energy vs. PacifiCorp. et al.	Civil No. 050903412	Breach-Related Damages
U.S. Bankruptcy Court, District of New Hampshire				
EUA Power Corporation	7/92	EUA Power Corporation	Case No. BK-91-10525-JEY	Pre-Petition Solvency
U.S. Bankruptcy Court, District of New Jersey				
Ponderosa Pine Energy Partners, Ltd.	7/05	Ponderosa Pine Energy Partners, Ltd.	Case No. 05-21444	Forward Contract Bankruptcy Treatment
U.S. Bankruptcy Court, No. District of New York				
Cayuga Energy, NYSEG Solutions, The Energy Network	09/09	Cayuga Energy, NYSEG Solutions, The Energy Network	Case No. 06-60073-6-sdg	Going Concern
U.S. Bankruptcy Court, So. District of New York				
Johns Manville	5/04	Enron Energy Mktg. v. Johns Manville; Enron No. America v. Johns Manville	Case No. 01-16034 (AJG)	Breach of Contract, Damages
U.S. Bankruptcy Court, Northern District of Texas				
Southern Maryland Electric Cooperative, Inc., and Potomac Electric Power Company	11/04	Mirant Corporation, et al. v. SMECO	Case No. 03-4659; Adversary No. 04-4073	PPA Interpretation, Leasing
U.S. Court of Federal Claims				
Boston Edison Company	7/06 11/06	Boston Edison Company v. United States	No. 99-447C No. 03-2626C	Spent Nuclear Fuel Breach, Damages
Consolidated Edison Company	7/07	Consolidated Edison Company	No. 06-305T	Evaluation of Lease Purchase Option






SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Consolidated Edison Company	2/08 6/08	Consolidated Edison Company v. United States	No. 04-0033C	Spent Nuclear Fuel Breach, Damages
Vermont Yankee Nuclear Power Corporation	6/08	Vermont Yankee Nuclear Power Corporation v. United States	No. 03-2663C	Spent Nuclear Fuel Breach, Damages
U. S. District Court, Boulder County, Colorado				
KN Energy, Inc.	3/93	KN Energy vs. Colorado GasMark, Inc.	Case No. 92 CV 1474	Gas Contract Interpretation
U. S. District Court, Northern California				
Pacific Gas & Electric Co./PGT PG&E/PGT Pipeline Exp. Project	4/97	Norcen Energy Resources Limited	Case No. C94-0911 VRW	Fraud Claim
U. S. District Court, District of Connecticut				
Constellation Power Source, Inc.	12/04	Constellation Power Source, Inc. v. Select Energy, Inc.	Civil Action 304 CV 983 (RNC)	ISO Structure, Breach of Contract
U.S. District Court, Northern District of Illinois, Eastern Division				
U.S. Securities and Exchange Commission	4/12	U.S. Securities and Exchange Commission v. Thomas Fisher, Kathleen Halloran, and George Behrens	Case No. 07 C 4483	Prudence, PBR
U. S. District Court, Massachusetts				
Eastern Utilities Associates & Donald F. Pardus	3/94	NECO Enterprises Inc. vs. Eastern Utilities Associates	Civil Action No. 92-10355-RCL	Seabrook Power Sales
U. S. District Court, Montana				
KN Energy, Inc.	9/92	KN Energy v. Freeport MacMoRan	Docket No. CV 91-40-BLG-RWA	Gas Contract Settlement
U.S. District Court, New Hampshire				
Portland Natural Gas Transmission and Maritimes & Northeast Pipeline	9/03	Public Service Company of New Hampshire vs. PNGTS and M&NE Pipeline	Docket No. C-02-105-B	Impairment of Electric Transmission Right-of-Way
U. S. District Court, Southern District of New York				



SPONSOR	DATE	CASE/APPLICANT	DOCKET No.	SUBJECT
Central Hudson Gas & Electric	11/99 8/00	Central Hudson v. Riverkeeper, Inc., Robert H. Boyle, John J. Cronin	Civil Action 99 Civ 2536 (BDP)	Electric Restructuring, Environmental Impacts
Consolidated Edison	3/02	Consolidated Edison v. Northeast Utilities	Case No. 01 Civ. 1893 (JGK) (HP)	Industry Standards for Due Diligence
Merrill Lynch & Company	1/05	Merrill Lynch v. Allegheny Energy, Inc.	Civil Action 02 CV 7689 (HB)	Due Diligence, Breach of Contract, Damages
U. S. District Court, Eastern District of Virginia				
Aquila, Inc.	1/05 2/05	VPEM v. Aquila, Inc.	Civil Action 304 CV 411	Breach of Contract, Damages
U. S. District Court, Western District of Virginia				
Washington Gas Light Company	8/15 9/15	Washington Gas Light Company v. Mountaineer Gas Company	Civil Action No. 5:14- cv-41	Nominations and Gas Balancing, Lost and Unaccounted for Gas, Damages
U. S. District Court, Portland Maine				
ACEC Maine, Inc. et al.	10/91	CIT Financial vs. ACEC Maine	Docket No. 90-0304- B	Project Valuation
Combustion Engineering	1/92	Combustion Eng. vs. Miller Hydro	Docket No. 89-0168P	Output Modeling, Project Valuation
U.S. Securities and Exchange Commission				
Eastern Utilities Association	10/92	EUA Power Corporation	File No. 70-8034	Value of EUA Power
U.S. Tax Court in Illinois				
Exelon Corporation	4/15 6/15	Exelon Corporation, as Successor by Merger to Unicom Corporation and Subsidiaries et al. v. Commission of Internal Revenue	Docket Nos. 29183- 13, 29184-13	Valuation of Analysis of Lease Terms and Quantify Plant Values
Council of the District of Columbia Committee on Consumer and Regulatory Affairs				
Potomac Electric Power Co.	7/99	Potomac Electric Power Co.	Bill 13-284	Utility Restructuring

JOHN REED WORKPAPERS:

-  WP JJR-1 Variable Pay How to Manage it Effectively, Robert Greene.pdf
-  WP JJR-2 Houston Area Employment - October 2018, BLS.pdf
-  WP JJR-3 Texas' Low Unemployment Rate Holds Steady as Job Growth Moderates, Dallas Morning News.pdf

**“Variable Pay:
How To Effectively Manage It”**
By Robert J. Greene, PhD, SPHR, GPHR, CCP, CBP, GRP

Introduction

Variable pay is a significant element of the direct compensation package of a growing number of organizations. The trend is towards more organizations using variable pay and for these organizations to expand eligibility and to increase the prominence of variable pay in the total direct compensation package.

Variable pay is defined as “direct compensation that does not become a permanent part of base pay/salary and which may vary in amount from period to period.” Other names for variable pay include: incentive compensation, incentives, bonuses, commissions, cash awards and lump sums.

Variable pay can be in the form of short-term (one year or less) or long-term (two years or more) incentives/bonuses and employee ownership programs. “Incentives” are plans that have predetermined criteria and standards, as well as understood policies for determining and allocating rewards. “Bonuses” are awards delivered at the end of the period, based on a subjective judgment as to the quality of performance and the rewards that are warranted.

Variable Pay Strategy

Effective variable pay programs are the product of an effective variable pay strategy, which guides the design and administration of programs. Effective variable pay strategies have two critical characteristics: they contribute to the organization’s success and they are a good fit to the organizational context.

In order for a strategy to contribute to organizational success, it must be aligned with the vision and mission of the organization. Heading the wrong direction at high speed does not bring one closer to the desired destination. An effective strategy should facilitate the attainment of organizational objectives, by ensuring that the right plans are implemented and that they are administered effectively. A sound variable pay plan strategy should contribute to sustaining the viability of the organization’s core capabilities and to leveraging its competitive advantages.

The fit of a strategy to the specific context is also critical. It must be feasible given the culture of both the organization and its workforce and it must be realistic, considering the environmental and organizational realities that exist. And the strategy must be well integrated with the organization’s strategy and structure, as well as its current human resource strategy. It must also be changed to respond appropriately to changes in the

context. Exhibit 1 provides a model for defining and assessing the impact of the context on HR strategy, of which variable pay strategy is a part.

Variable pay differs from other forms of compensation, such as base pay and benefits. It does not fit an entitlement culture, since it is not a career annuity like a base pay increase, and it must be re-earned during each measurement period. From a financial perspective, it is a variable cost, whereas base pay and benefits are fixed in nature. One of the difficulties associated with administering variable pay is that it is much more difficult to measure the competitiveness of plans. Unlike base pay levels, variable pay levels vary dramatically for some occupations, transforming the “prevailing market average” into a broad range, rather than a point. One of the positive characteristics of variable pay is that it can be tied to performance at various organizational levels and it can be based on short-term or long-term performance or a combination of the two.

One of the most significant advantages of variable pay over other forms of compensation is that the costs associated with a plan can be aligned with revenues/performance and thereby vary with revenues in a manner that is economically sound. U.S. organizations have used variable pay much more sparingly than most global competitors and it thus places them at a disadvantage when the global economy is subject to large variation. When there is a downturn the need to cut costs to protect profitability can force organizations to cut headcount and alienate the very people who will be needed during the impending upturn. If direct compensation costs are at least partially variable dysfunctional downsizing can be minimized, since costs will flex in synch with revenues if the variable pay plan is well designed.

The motivational potential of variable pay is stronger than other forms of compensation. Although base pay programs that are administered based on performance can be effective motivators the difficulty of tying base pay adjustments to specific objectives is known to all who have tried. Merit pay programs must also reflect increases in the employee’s mastery of the job-critical skills/knowledge and since the pay structure is typically moved on an annual basis some of the funds available for base pay increases will be consumed by the need to at least keep the pay rate in the same position in the pay range. What is left over is just not adequate to provide a strong monetary incentive to perform. The fixed nature of base pay also means that a large award for a great year becomes a fixed annuity – U.S. culture pretty much precludes pay reductions for subsequent bad years. Variable pay plans can result in income that is lower than last year’s and they can truly provide rewards that are consistent with one’s contribution.

Current trends are towards more use of variable pay, which will be discussed further in later modules. Therefore, an organization without a variable pay component will be at a competitive disadvantage, at least for its best performers. Also, variable pay plans are typically “self-funding,” which means the results have to be realized before the expense

is incurred. This provides an additional source of funding for variable pay, while the base pay adjustment fund must be wrenched out of the budget, while competing with all the alternative ways of spending an organization's available capital.

There are potential disadvantages associated with variable pay. Budgeting is difficult and there is great pressure to make all performance criteria, measures and standards clear and defensible to all parties at interest. As more employees operate in a service capacity, with no physical product that can be counted or weighed forthcoming from their work, the task of getting everyone to agree about what really happened during a performance period is increasingly difficult. When there are significant cash awards at stake, the emotions run even higher.

Notwithstanding these potential disadvantages, there are several strong business reasons for considering variable pay, some of which have already been discussed:

Economics: The conversion of what have been fixed costs to variable costs is an advantage of some significance. Variable pay awards do not compound the way base pay adjustments do, thereby lowering escalation rates over time. Assuming variable pay is tied to performance it both allocates awards more optimally and is contingent on the organization's economic ability to pay. Finally, variable pay plans can be customized to fit different business units, providing a localized customization to the unit's ability to pay and creating a focus on its specific objectives.

Competitive Practice: Variable pay programs can be an effective tool for attracting and retaining critical skills, as well as high performers. Since the existence of a variable pay component in the compensation package offers less of a guarantee but more opportunity relative to income, this type of package will disproportionately attract those confident of their ability to perform well and willing to do so. Leveraging the organization's strengths via variable pay plans is another opportunity... an organization experiencing rapid stock price escalation can include a heavy dose of stock options/grants in its plans, thereby giving it a competitive advantage. The flexibility associated with variable pay plans can enable the organization to emulate the best in its industry in order to stay competitive, which is often not possible with base pay or benefits.

Motivation: Already mentioned, this is a major strength of variable pay. Defined objectives/criteria and standards enable the organization to provide a sharp focus on its priorities, and to do so at every level. Variable pay awards act as reinforcement for those succeeding and provide a scorecard to enable people to continuously evaluate results. To the extent that people are provided with a "shared destiny" using group incentives, there can be a strong motivation to support each other and to work cooperatively rather than competing in a dysfunctional manner. The prerequisites to performance are the ability to perform, being allowed to do what it takes, the desire to

perform and the knowledge of what constitutes performance. Variable pay plans can function to ensure these prerequisites are in place. HR can use variable pay in their initiatives to promote high levels of performance at individual, group and organization-wide levels.

Communication: Variable pay, particularly if designed as an incentive, is one of the strongest signals an organization can send to its people as to what is important. By continually measuring results high quality feedback can be provided, enabling people to know how they are doing and how to do better. By making employees eligible for variable pay awards it sends the message that what they do counts and that the organization is willing to show its appreciation tangibly. Finally, the criteria used in variable pay plans can promote the importance of mission attainment and of living the defined values on the way there.

Other: There are other reasons for considering variable pay. The plans can be used to communicate and direct a change from an entitlement culture to a performance culture, as well as promoting employee engagement. Variable pay can also provide a sense of ownership, even for organizations not able or willing to use stock or share equity... emotional ownership can produce results even though financial ownership is not possible. By balancing the definition of performance to include both the short-term and the long-term it is possible to elicit a balanced perspective. Short-term maximization at the expense of long-term optimization is a danger that is fueled by having all rewards tied to performance, which many organizations do. Finally, a reason for using variable pay is that it works. Depending on the soundness of the strategy and the plans, which can be the good news or the bad news. Much damage has been done by variable pay plans that motivated the workforce to do the wrong things. It is therefore necessary that a variable pay plan be respected much the same way an electrician respects a wire carrying high voltage.

Research has demonstrated that some human resource programs and initiatives produce a significant impact on performance in organizations (as measured by factors such as quality, productivity, speed, customer satisfaction and unwanted turnover). The two initiatives that consistently showed statistically significant positive results were linking pay to performance and using variable pay. Research has established the potential of variable pay to produce the desired business results.

Types Of Variable Pay Plans

There are numerous types of variable pay plans. They can be categorized by the level at which performance is defined, measured and rewarded (individual, group or organization-wide). They can also be differentiated by the timeframe associated with measuring and rewarding performance (short-term or long-term). Finally, they can be classified according to the form of award (cash, equity or recognition).

Individual plans: plans that define, measure and reward performance at the individual level. When individual performance is the focus there are several variable pay approaches that motivate and reward at the individual level.

The oldest type of individual incentive plan is the output-based (piece rate) plan that rewards productivity. Another type of output plan is the sales commission, which ties pay to the volume of sales produced by an individual. Anyone who has seen the classic film of Lucy and Ethel on the candy assembly line or Charlie Chaplin in “Modern Times” may view piece rate systems as exploitative, but where output is under the control of the individual and where quality can be controlled this type of plan is highly motivating and produces a direct link between pay and performance. Although most frequently used in production environments output plans are also found in white-collar settings where the work is production like, such as claims processing in insurance or proof operations in banking.

The key to success is being able to measure output accurately and to ensure that the individual is able to control production. If material availability, machine downtime or dependence on others are issues it complicates gaining acceptance that the plan is fair. Most plans call for the payment of a base rate, with incentive pay kicking in above some threshold level of production that is a break-even point (the point at which the employee has earned the base rate).

Basing variable pay on the attainment of specific objectives is a widely used approach. This is often termed the “management by objectives” approach. The objectives can be quantitative, qualitative or time-based and multiple objectives can be used. The most difficult measurement challenges are encountered when setting objectives at equivalent levels of difficulty across units and occupations, as well as identifying objectives that are both under the control of the individual and that can be objectively evaluated. There are challenges associated with assigning relative importance weights to goals, as well as keeping track of progress against expectations on an interim basis, so individuals can keep score and redirect when appropriate.

Merit pay can be objective-based and can result in cash awards rather than exclusively determining base pay adjustments. Exhibit 2 is an example of a system that combines base pay adjustments with cash awards. The cash awards are determined based on the performance appraisal rating, while base pay adjustments are tied to both the performance rating and the relative position of the employee’s base pay in the range for the job. This approach can generate relatively large (6% and 3%) performance cash awards with a relatively small fund (e.g., 1 ½% of payroll) for these awards out of the amount budgeted for base pay increases. By reserving these awards for the top performing employees, the potential awards become significant and thereby gain real motivational value.

The use of recognition at the individual level can provide employees with valued rewards, even though they are not financial or are modest in size, and therefore are not technically “variable pay.” It is important to recognize that behavioral research has established that being recognized and appreciated can be as powerful as cash in motivating future performance.

Individual plans work best in contexts where individuals work relatively independently of each other and have large amounts of discretion about how they do their work. In some cases, the technology used dictates individual measurement (e.g., inbound or outbound voice center operators who handle discrete transactions with customers alone). Also, in individualistic cultures such as the U.S. the organization is in great peril if it does not recognize the contribution of the individual... “Socialism” is not a popular concept. But individual plans also can be a bad fit in units where employees are highly interdependent and/or when a wide variety of knowledge/skill is required and no one individual has all it takes to produce the desired result. And in countries where the culture is oriented towards collectivistic thinking and behavior (e.g., many Asian countries), individual incentives may be viewed as inappropriate.

Group plans: plans that define, measure and reward performance at the group, unit or team level. There are several types of group plans and the most effective plan will be the one that best fits the specific context.

Productivity/cost-based plans are often called *gainsharing plans*. The name fits the concept; if productivity is increased, the value of the gain will be shared between the employees and the organization. These plans are typically based on formulas that consider cost, resource use or productivity ratios to determine awards. Since they are most often used in stable environments and with non-management employees the payout period is frequently quarterly or even monthly and there is usually an employee suggestion process in place, in order that employees can influence their destiny. When the measures are financial and a “profit center” is the level of measurement, these plans are sometimes made into a profit-sharing plan. When multiple measures are used and they include qualitative criteria they are called, “performance-sharing” (a.k.a., goal-sharing) plans.

Increasingly the work of employees is project-based. This has always been the case with professionals (e.g., Engineers or I.T. personnel). Variable pay plans tied to projects have become more common, encouraged by the development of project management technology, and these plans can be tied to individual incentives as well as group incentives.

Group recognition is also a form of reward that can have positive motivational impact. Pitting groups against other groups may create a positive competition, assuming their

work is not interdependent, and celebrating the results of a group can increase its cohesiveness. Team-based incentives have been talked about a great deal in the last decade, but it is important to determine what type of team a plan is being developed for and what kind of plan will motivate the team to produce the desired results. Work teams are units that perform the work of the organization and are staffed by people who work in the team full-time and who are permanently assigned. This type of team can be rewarded using the typical group plans. A project team is usually made up of members who work either full-time or part-time in the team and who are assigned only for the duration of the project. This argues for a project-based variable pay plan, particularly for those who are assigned full-time during their involvement. "Parallel" teams are usually made up of employees who participate in addition to performing their full-time job and who may be assigned for a short time. This type of team is often called a "task force." It is common to reward task force members with recognition or modest financial rewards, given that their compensation is tied to their performance of their permanent assignment.

Organization-wide plans: plans that define, measure and reward performance at the organization-wide level. There are two major types of plans – one that provides rewards in cash and a second that uses stock or other forms of equity/ownership.

Profit-sharing plans typically share a portion of profits over a threshold level that provides a fair return to shareholders. Distribution of a profit-sharing pool is almost always egalitarian, with employees sharing an equal percentage of their base pay, or even receiving the same dollar amounts. Profit-sharing plans have been used in the U.S. since before 1900 and their primary purpose has been to create a "shared destiny" among employees, thereby motivating them to align their efforts and to focus on organizational profitability. Organizations such as Sears became preferred employers because of these plans, but many were qualified deferred plans and served to provide retirement income and estate building. Performance-sharing plans are a variation of the profit-sharing model; they differ in that they use multiple measures, many of which may not be financial (e.g., customer measures, quality measures and the like). The recent rise in popularity of the "balanced scorecard" concept has made these plans more popular, since their criteria are a scorecard for measuring organizational performance.

Stock or equity based plans differ from cash based plans in several ways. First, they inherently have a longer-term timeframe for realizing value. Also, they vary in value at least partially based on external factors rather than organizational performance. The equity markets create the wealth produced by stock, through price appreciation, so organizational performance may only determine how much stock is distributed and not what it is eventually worth to the holder. Stock purchase plans give employees an opportunity to buy stock, often at a preferred price. Although popular in the past organizations came to realize that it was difficult for low-paid employees, who had little

discretionary income, to participate extensively and that the volatility in stock prices often produced a level of risk they could or would not take. For this reason, most broad eligibility stock plans are either stock bonuses/grants or stock options. Some profit sharing and performance-sharing plans pay out partially in cash and partially in stock, with the ownership of the stock being transmitted to the employee. This avoids the affordability problem for lower-paid employees and makes them immediate owners, able to vote the stock and to enjoy dividends and price appreciation. Stock options are tools for providing privileged access to stock ownership, by granting the right to purchase a specified amount of stock at today's price for some time into the future (most commonly ten years). If the stock does not perform well employees can walk away from the exercise option without losing money; if it does well they can often exercise and sell immediately or after a relatively short time. Unless the employee makes a bad early exercise decision, this is a risk free program.

A final type of organization-wide variable pay plan is a deferred compensation plan, most often a "401K" plan that enables participants to delay receipt of income and to enjoy a matching contribution from the organization. Although the conventional forms of 401K plan matching is a set formula (e.g., the first 6% of employee contribution will be matched 50% by the company). What makes these plans an incentive plan is when the matching percentage becomes variable, based on company performance. For example, the company might match 50% on a guaranteed basis, but if the company meets its targets it would increase the match to 75%, and if performs at a very high level the match would go to 100%. This could be an attractive way to encourage more retirement plan augmentation, as well as make the company contributions contingent on its performance.

To summarize, the type of plan used should fit the context and facilitate the attainment of the organization's objectives. Plans intended to align people would tend to be group or organization-wide, while plans attempting to maximize individual performance would be designed to measure and reward performance at the individual level. As more organizations operate in multiple countries, (cultures) they find that it may be necessary to use different types of plans in different regions or in different business units, due to the differences in the contexts within which the plans will operate.

Plan Design Issues

There are seven key design issues that guide the creation of an effective variable pay plan.

Plan Objectives: The first step in the design of a variable pay plan is the establishment of those objectives the plan is to achieve. By first establishing the objectives the search for the appropriate type of plan is made easier and the selection is focused on the needs and priorities of the organization.

One of the most common objectives is to align reward costs with performance, whether it is at the organization-wide, group or individual level. As mentioned earlier when discussing the advantages of variable pay each year's cost is a one-time expenditure that is not compounded in future years and the costs can be controlled through a budgeting process. By tying variable pay funds to the firm's ability to pay under multiple scenarios there can be close alignment between revenue/operating budget and costs.

Another prevalent objective is to motivate performance at the individual, group and/or organizational level. Because variable pay plans can be tied to predetermined objectives employees know what is at stake and what it takes to realize rewards, as well as being able to keep 'score' during the year and do determine how well they are doing. By developing multiple plans or plans with performance measured at multiple levels, the business plan can be integrated across levels to be sure individual and unit performance delivers the desired results at the organizational level.

Sharing success with employees goes beyond motivation and can act as a way of expressing the importance of everyone's contribution and displaying willingness to reward effort and results. Closely aligned with this objective is that of attracting and retaining critical skills. Individual variable pay plans can send the signal that the organization provides large compensation potential for high performers, as well as brand the organization as one who recognizes and values good employees. It has often been said that "what you reward you get more of," and this concept extends to "what you offer will determine what you get - in the way of employee quality."

One of the most overlooked characteristics of variable pay is its ability to act as a powerful signaling device. Effective communication of what the organization needs and wants is best done in a free market culture like that prevailing in the U.S. by providing inducements. This is not to suggest that cash is the only inducement that will encourage people to help the organization succeed, but it is a tangible yardstick of accomplishment and it fits the type of employment arrangement typical in the U.S.

Type of Plan: When the objectives for the plan are established the next step is to determine what type of plan will best fit the context and that will have the best chance of meeting the objectives. In the previous section the various types of plans were discussed. The decisions about the type of plan will hinge on:

- 1) Whether performance will be defined, measured and rewarded at the individual, group or organizational level,
- 2) The timeframe for measurement,
- 3) The role variable pay will play in the total compensation package,
- 4) The performance measures that will drive the plan, and

- 5) What the performance standards will be based on and the level at which they will be set.

Eligibility: One of the critical plan design issues is who to include. The objectives established for the plan and the type of plan provide considerable guidance as to who it makes sense to include. A commission plan to increase individual sales would be unlikely to include clerical personnel... a plan intended to provide a shared destiny throughout the organization may not leave out any employee.

The criteria that potentially can be used to determine eligibility for plans are varied. Deciding to include all employees sends that message that the plan objectives need the contributions of everyone. Basing eligibility on title/status (e.g., officer; vice president) was more prevalent in the past than today... organizations use titles for many purposes and these designations may not fit sensible criteria for plan eligibility. It is more common to base eligibility on job grade or pay level, since there tends to be a correlation between grade and the potential impact the job has on organizational results. Unfortunately there never seems to be a cutoff point that does not start "border disputes" and everyone who is one level below begins a lobbying campaign to have their job raised one grade... this has been the undoing of many job evaluation plans because those guarding the borders always seem to be overwhelmed by the aspirants.

One of the most common cutoff tests is whether or not someone has a *direct* and *significant* impact on organization/business unit results... but it is easy to see how these words can mean different things to different people. The same is true of using a criticality of skills test... many refrains of "if we are not critical let's see how you do without us" have been heard in response to this test. The discretion of management is sometimes used, and the quality of the selection will depend on the quality of the criteria used and of the people applying the test. Finally, the longevity of the individual may be used. If longevity is valued, however, it is usually better to establish a separate service award program, in order to avoid disconnecting rewards from performance.

One option to using a binary classification is to have tiers of participants, with the target award levels varying by grade/pay level. This avoids an "us-them" message and most employees will accept that those at higher levels are appropriately put more at risk and that they have a more direct impact on performance. But, create a border and you create a border dispute. So even the tiered approach does not avoid debates, but it does tend to lessen their intensity, since less is at stake.

Formula For Determining Award Funds: There should be a set of criteria that will be used to determine how much is available for variable pay awards. This determination is critical, since it will govern the relationship between performance and reward costs. Below some level of performance, it will probably not be possible to afford and/or justify the payment of any additional awards on top of base pay. Many a shareholder

rebellion has been caused by variable pay plans with very low performance thresholds... a California utility paid out millions in "incentives" the day before it sought bankruptcy protection, justifying this by saying it was part of the employee pay package. It seems to some that people were rewarded for destroying the organization, and this is bad public relations.

Discretionary determinations are not always inappropriate, since many organizations find it difficult to forecast with any certainty. If there is an unstable and unpredictable environment, it may be more appropriate to evaluate what results were at the end of the period and how good they were considering what happened. On the other hand, discretionary plans with no predetermined criteria provide little motivation or focus and can be viewed as "Santa Claus" plans by shareholders. One way to improve on discretionary plans is to identify the criteria that will be used to measure performance in advance and to keep score during the period, communicating interim evaluations. This can provide focus without the certainty of having standards tied to the performance criteria.

When setting performance standards one can "look back" (compare to historical results), "look around" (compare to peers) or "look ahead" (set future goals). Stable organizations in settled environments often use compounded improvement formulas to drive their standards. Rapidly changing organizations that are in volatile and highly competitive environments may compare to others, thinking that their relative standing in this comparator group reflects performance, and does so better than a forecast that was not much more than a guess. Organizations that have to meet certain thresholds in order to survive or to be viewed as successful will tend to use a future-oriented perspective when setting standards. Whichever perspectives is used there is the issue of a threshold, below which even base pay has not been earned and above which it is reasonable to reserve a portion of the bounty for those who made it happen.

An issue related to determining the award fund is the mix of base and variable. Variable pay can vary from nothing (an all base pay package) to everything (an all variable pay package), with most plans coming down somewhere in between. This decision impacts the budgeting for both base pay and variable pay, as well as determining the makeup of the cost structure. The current organizational context should drive the overall mix decision, while the nature of different units and different occupational groups/jobs should establish the mix at the unit and individual level.

Formula For Allocating Funds: The second part of the allocation issue is how to allocate the funds generated to groups and/or individuals in the form of awards. This decision is similar to managing a water distribution system: based on what is available in the reservoir (due to rainfall), how the water will be parceled out to businesses, farms and homes. Some plans, such as cash profit-sharing plans, use an egalitarian distribution and award everyone the same % of base pay or the same \$. Others will allocate the total

fund to units, based on their relative performance, and then let the units allocate their funds to individuals (or prescribe that the allocation be on an equal % or \$ basis). Finally, an individual performance metric (e.g., performance appraisal rating) may be used to differentiate award size across individuals. One further variation of this approach is the “World Series Team Share” method, which gives everyone their share assuming they showed up and did what was asked, whether they batted .400 or .100. This type of binary differentiation avoids people whose performance was not at least at a “fully meets expectations” level from receiving an additional award attributable to the efforts of others.

It is helpful to formulate a model that addresses what variable pay awards are based on (organizational, unit and/or individual performance) and what the award potential is for all categories of employees. The most common practice is to base senior executive awards on organization-wide performance criteria, middle management on a combination of organization and unit performance and the remainder of eligible employees on a combination of organization, unit and individual performance. Exhibit 3 shows an example of an allocation model; it should be noted that employees who do not fall into the managerial/professional category have the largest portion based on individual performance, although there can still be a “World Series Team Share” binary approach, resulting in the same relative award for those performing satisfactorily.

The award targets are often tiered, with senior management having the highest variable pay award potential (expressed as a % of salary), reflecting their greater impact on performance and their ability to absorb more contingency in their direct compensation package. Exhibit 4 illustrates the typical relationship between levels, with threshold, target and maximum awards specified as a % of base pay. The actual percentages vary widely by type of industry, organizational maturity and culture, but the relationship across levels is fairly typical.

One way to base awards on multiple criteria is to create a matrix as shown in Exhibit 5. This approach can be used to accommodate two goals or it can be used to combine organizational and unit performance determinants. For example, the vertical axis (labeled Goal 1) could be organizational performance and the horizontal axis (labeled Goal 2) could be unit performance; the same approach could be used to measure both unit and individual performance. A final modification would be to use all three levels, making individual performance a modifier that further revises the award indicated in the two dimensional matrix, which would be based on both organizational and unit performance.

The alternatives for allocating awards to individuals are numerous and each approach sends a different message:

- equal percentage of base pay rate
- equal percentage of range midpoint

- equal percentage of base pay rate up to a maximum
- varied based on organizational level or grade level
- equal dollars to each participant
- equal dollars per hours worked in period
- varied based on individual performance

The objectives for the plan will help guide allocation. If the plan is intended to convey a shared destiny it will award the same amount or same percentage of pay to each participant. If the plan is intended to differentially award based on contribution the performance rating will be used to vary awards across individuals.

Form And Timing Of Awards: Two maxims apply here: “cash is not everything but it buys most things” and “sooner is better than later.” The majority of variable pay plans deliver awards in the form of cash, although as mentioned earlier, stock or other real property may be used, and in some cases, non-financial recognition is more appropriate. Perquisites (special advantages, such as cars, club memberships and the like) may also be used when they have status value or tax efficiencies associated with them. Unfortunately, the actions of greedy executives have given perquisites a bad image, although it might be more palatable to see advantages given to people who perform at high levels, rather than those who happen to have high pay rates.

The timing of awards becomes an issue when a plan covers a wide variety of occupations or the gamut from executives to operatives. For a production worker covered by a formula-based gainsharing plan an entire year may not be an appropriate timeframe... more frequent measurement and reward (quarterly or monthly) may better fit the work cycle. The same may be true for direct sales personnel. On the other hand, for executives who may be responsible for planning, building and making operational a billion dollar facility, it may be unnatural to try to measure and reward performance in a time period as short as one year. For this type of employee, a multi-year plan may make more sense and measuring performance may be more accurate.

A final dimension of the timing issue is the option of either allowing an award recipient to defer the amount to some time in the future or requiring them so to do. Some stock plans have a multi-year vesting period and some cash plans a multi-year measurement period. And some employees may value the option of voluntarily deferring awards to a time when they will no longer be working or at a time when triplets will all start college simultaneously. Finally, some organizations allow deferrals of annual incentives to a time when the participants will require cash to exercise stock options, which enables the short and long-term variable pay plans to be integrated.

Plan Administration

The best-designed plan will fail if it is not administered effectively. The objectives for the plan and the type of plan will impact how a plan should be administered, and the

design will largely prescribe the administrative policies. However, much can go wrong. Failure to continuously evaluate a plans continued appropriateness and to make the necessary modifications required by changes in the context will render a plan ineffective.

The Plan Management Cycle: A variable pay plan is a part of a compensation strategy, which in itself is a part of a human resource strategy. As noted in the course on human resource strategy, these strategies must be consistent with the organizational strategy and its context. Therefore, a change in organizational context or strategy may signal to need to revise the human resource strategy, and perhaps the compensation strategy. Variable pay is but one element of compensation and it must be kept in alignment with the other elements and remain consistent with the role the compensation strategy assigns it. This means that any variable pay plan must be a part of organizational decision-making and strategic management and therefore those making these decisions must be part of variable pay plan design, communication, implementation, administration and evaluation. Ownership of variable pay plans by the Compensation function is not desirable, unless it is shared with executive management.

The compensation strategy should provide direction to those charged with designing variable pay plans. It should answer the key question: what role variable pay will play in the total compensation package and what criteria will be used for evaluating its appropriateness and effectiveness on an ongoing basis. The variable pay plan design decisions should be guided by the compensation strategy and the organizational culture should guide the communication and training necessary in order for a plan to succeed. The evaluation of plan effectiveness should be largely prescribed by the compensation strategy and the plan objectives.

Plan Implementation: An effective plan must “take” in the organization; that is, it must be accepted, viewed as adequate, appropriate, fair and competitive. The manner in which it is implemented will largely determine how well it will guide and motivate effort. The implementation plan starts with the initial design of the plan. If those who develop the plan (outsiders or insiders) do not have both the knowledge and credibility required the plan will not launch. Japanese organizations take a great deal of time to achieve consensus about issues like variable pay plan design – it is then a simple matter to gain acceptance, since all the right people were involved and had their say. U.S. organizations are criticized for moving quickly through design and then taking forever to force the plan into place, as they prevail over the detractors. This is clearly a stereotype, but the culture is one that tends to reward moving quickly and bravely and often seeking broad-based participation is viewed as weakness or indecision. The parties who must accept the plan include participants, but this does not mandate a democratic election, which could drag out indefinitely and be the camel that started out to be a horse, until a committee got involved.

Piloting a plan can give developers an opportunity to discover what they forgot. It is also a lower risk way to launch a plan. However, there is always a danger of trying the plan out in one niche and then making the assumption that it will operate similarly in other parts of the organization, however different they may be. One of the techniques used to test the measures being used is to do a “dry run” behind the scenes to see how well the criteria can be measured and the resources required to do it well.

Communicating a plan and training those who will either play roles in its administrations or be “consumers” (participants) is critical to implementing a plan. Too often designers assume everyone will figure it out, which they do...each their own way. And communication cannot be accomplished in 45-minute group meetings. One of the most effective ways to build understanding is to use scenarios that show how the plan will operate and how it will respond to changes. A simple four page fold-over booklet can do much to explain the plan – the pages should answer the critical questions:

- 1) Why is the organization doing this – what does it want to accomplish,
- 2) How does it work,
- 3) How much can people get and
- 4) What specifically will happen and when?

Policies and procedures can also help enhance understanding, as can plan documents written for those who did not complete law school. Training people who play roles is also critical; particularly managers who are expected to make decisions about how well individuals and units did and to what they are entitled. If there are deferrals or stock involved there will be a greater requirement for documenting the specifics and it should be remembered that even if the plan is not fully committed to writing it is a verbal contract relative to those things that were said or even those hinted at. Finally, there should be a “sunset provision” that says the plan is good for a specific period (e.g., one year) and that at the end it will be evaluated and modified, left as is or terminated. Too many plans went into old age strictly because of inertia, not because they worked. The final step in plan implementation is to develop and communicate the “instrument panel” that will monitor the plan and evaluate its effectiveness. If this is not during at the start, the plan can be taking the organization in the wrong direction at high speed.

Plan Administration: Things happen... even things no one thought of. Variable pay plans are subject to challenge and litigation because they offer the promise of reward. Sales compensation suits are often found to be the most common type of civil suit and though these plans tend to be much more specifically formula-driven, other types of variable pay plans may create the same kind of legal liability. The best way to make administrative decisions is to do so based on policies that were developed before the plan went into effect. Snap decisions can often fill the gap when rules are unclear but they then often become precedents that guide future action, even though they have not been thoroughly reviewed and adopted through consensus.

New hires and terminations during the year raise the question of eligibility for plan rewards and is probably the most common event requiring administrative action. There is no right answer to the questions that arise – only the best one for the organization at that time. For example, is someone hired six months into an annual plan eligible to get anything? Does someone who is fired on December 15 get left out of the annual plan that ends two weeks later? Death, disability and retirement decisions are usually clear, assuming the appropriate action is determined in advance, but what about leaves of absence? One critical issue for annual plans with quarterly or monthly interim payouts is whether everything earned that period is paid or if there should be some holdback for negative periods. Asking for refunds due to a bad February after large payouts for a great January will hardly win over the hearts of participants, so this issue should be decided in advance, based at least partly on discussions with participants. For example, most gainsharing plans with monthly payouts hold back 25% and the books are closed at the end of the year – with no refunds demanded if the holdback balance is not enough to cover a very bad year end.

A key design decision with a major impact on how fair participants think the administration is – when, if ever, are criteria and/or standards changed? There some that believe once the plan is set that no changes should occur. However, many incentive plans went dead part of the way through the year when unanticipated external events made making the plan automatic or impossible. Even though it seems reasonable to modify a plan to fit realities as they evolve it is very hard to make this a two-way street. If something happens to make goal achievement harder, there will be a long line outside the plan administrator's office full of heart-rending stories. However, if something makes the plan easier, the lack of a line may alert that administrator to an unbalanced situation. That notwithstanding, a process for modifying a plan based on unanticipated external events should be established at the time of plan inception.

A legal issue arises when non-exempt employees are included in variable pay plans, particularly incentive plans with established criteria. The US Fair Labor Standards Act (FLSA) prescribes that the base rate computation for the overtime pay rate is raised by incentive awards. This often necessitates the difficult re-computation of overtime earnings retrospectively. To avoid such an administrative disaster it is advisable to anticipate the requirement and perhaps tie incentive awards to taxable earnings or at least base pay plus overtime earnings. This should avoid the need for back computation, although it does present an additional expense for which you should anticipate and plan.

Evaluating Plan Effectiveness: As suggested earlier, if the evaluation criteria and processes are left until the end of the plan period it is much like saving the cost of ship radar and then trying to decide why it hit the rocks after it has sunk. The questions seem simple: Did the plan ask for the right results? Produce them? Did it ask for the right behaviors? Produce them? Did everyone understand the plan? Accept it? By

developing a list of effectiveness criteria, measures and standards and by beginning to evaluate plan operation when it is launched a lot of salvaging wrecks can be avoided. Interim results vs. budget, trends in productivity and other analysis can diagnose difficulties and make it possible to do course corrections or to change standards before difficulties compound. Particularly in the first year of operation, it is critical to identify the refinements needed and to make them, before a payout is resentfully made. By continuously evaluating the plan, the organization can often limit changes to refinements and save a plan that otherwise would be cancelled at the end of its maiden year.

Prerequisites For Variable Pay Plan Success: If a plan is successful in facilitating the fulfillment of the organization's mission and meeting its objectives it will be viewed as a valuable tool for long-term viability and success. If it fits the culture and context, it is going to be consistent with the values and priorities of those who participate, making it acceptable to them. If the plan is consistent with the organizational structure and supports its strategy, it will become an integral part of the business plan. And if it is well integrated with the other elements of human resource strategy (staffing, development and performance management) it will assist in attracting and retaining the human capital the organization needs.

When Is A Plan Likely To Fail? If the culture is one of entitlement, the pay for performance philosophy underlying variable pay will conflict with what employees expect and can be the source of dissension. If the economic environment is such that performance is largely dictated by outside factors (e.g., governmental regulation) it may be difficult to convince employees that they control their financial destiny. If good measures are hard to identify or get agreement about and/or if the organization does not have the required measurement mechanisms in place it will be difficult to convince employees that their performance can be fairly and consistently measured.

Certainly if the organization does not have the resources to afford variable pay the prospect of large rewards should not be made. Affordability of a plan is a critical part of a feasibility study and multiple scenarios must be modeled in advance to ensure that the organization is happy to pay given alternative outcomes.

If communication is poor or trust is lacking there is little chance for variable pay plan success. And finally, if the people who are the participants in a plan are not viewed as critical assets, who must contribute in order for the organization to succeed, there is no reason to consider adopting a plan.

In summary, what works is what fits a specific organization, or part of an organization, at a specific point in time. A well-designed plan also requires good implementation and administration and it must be evaluated continuously to ensure it remains effective.

Trends and Current Issues In Variable Pay

There are pronounced trends relative to the use of variable pay, as well as a number of emerging issues. Trends do not dictate the direction an organization should take in their variable pay strategy or programs, but there is peril in not monitoring what others are doing and determining why they are doing what they are doing.

Trends: More organizations are using variable pay as a significant element in their total rewards package. This trend is particularly pronounced in the U.S., since usage of broad-based programs has been much less prevalent than in many other parts of the world. As mentioned earlier, variable pay plans have a number of strengths when an organization must compete for critical skills and when it must cope with a turbulent environment that makes revenues much more variable. Alongside this trend is the expansion of eligibility for variable pay programs. For decades, significant variable pay potential was reserved for executives and sales personnel... this is changing dramatically, to the point that organizations will ask why any employee group is not included, rather than skeptically asking why they should be. This will have a profound effect on the people cost structure and may provide some insulation from the dramatic downsizing many organizations are using to align costs with revenues. It will also better equip organizations to use contractors and project personnel to do much of the work traditionally done by permanent employees, a requirement for success in many industries today. It may also change the nature of the employment relationship substantially, to one in which the expectation of longevity becomes "however long the relationship is mutually beneficial."

Fewer variable pay plans celebrate aging and thus performance has become the dominant driver of rewards. Multiple plans are becoming more widespread, principally because measuring performance at multiple levels is more common. One of the best ways to ensure performance at the individual level results in performance at the group level and that the benefits also accrue at the organizational level is to design variable pay plans that emphasize the need to manage performance across all levels. Stock-based plans are increasing in frequency, notwithstanding the skepticism prompted by market performance from 2000 to today. The belief that being an owner can motivate one to behave like an owner is one reason for the increased popularity of broad-based stock plans. Another is the fact that the equity markets fund employee rewards through price appreciation and that the organization does not have to write a check, thereby impacting earnings. As employee ownership becomes more extensive the governance of organizations may well change as well, a possibility not lost on governmental regulators or investors.

Issues: Global strategies for variable pay are being formulated as organizations do business, or at least compete globally. The key issue is whether plans are universal or whether localized adaptation consistent with global principles becomes the preferred

approach. The first shock to the compensation planner who has not dealt with issues relating to the design of plans that reach across cultures and borders is the number of new issues that present themselves and how complex they are. Laws, regulations and tax codes differ dramatically across borders, even within regions many consider to be homogeneous (e.g., Asia). Economic conditions also vary – across countries and within countries across time. Cost of living and inflation rates are two byproducts of economic variations and these can materially impact the ability to move key personnel around the globe and how the organization delivers the paycheck. There are logistical and communication challenges as well. European data privacy laws are far different than those in the U.S. and may prevent administrators from being able to obtain employee information necessary for plan operation. Language barriers can frustrate the most basic communications relative to plan design and administration. And cultural differences can cause meanings to change as information goes through the value-based filters of the sender and the receiver.

There are strong arguments for global consistency when designing plans and when making administrative decisions. It enables the organization to maintain internal equity, particularly for units like global teams that require close relationships and interdependent work. If the mobility of personnel across borders is important, consistency in the rewards package can ease the movement. One of the most important characteristics of having one plan for all is that it can provide alignment with the organization's objectives and can also communicate corporate values. The fact that consistency can promote cultural homogeneity could begin a debate about whether this was in fact a good thing, particularly as many organizations want to be diverse mosaics, full of different perspectives and different ways of approaching things. The "one plan for all" promotes alignment but may also rob the organization of any true dialogue – the "group think" trap.

Certainly one of the strongest arguments for consistency is the cost of administration. Having separate sets of variable pay plans for each country can overload administrative resources, and many may argue there may even need to be different plans for different regions/states within the same country. But having one plan should be more efficient of resources and certainly is a consideration when developing a global strategy. By using a strategy to drive decisions about plans, it may be found that similar countries can have the same plan and that the final result is a catalog of a manageable number of models that can serve a larger number of countries. The efficiency gained by combining plans runs the risk of ignoring or minimizing local differences, however, and having a plan found to be illegal or that it is subject to a local tax that was missed can be both embarrassing and expensive.

The arguments for local customization are significant. Cultural differences may mean that an effective plan in the home country would have disastrous effects in some locales. If an incentive plan that recognizes individuals causes them to resign in

disgrace because they were separated from their group it could hardly be considered a success. Some of the same issues are faced with base pay plans and the eligibility for perquisites, of course. But variable pay plans are highly visible because the rewards show up at one time and because the plan provisions are widely communicated, so they are subject to widespread scrutiny.

It may also be that the same business varies substantially in its characteristics across regions. A widely respected brand in the U.S. may be unknown elsewhere, necessitating different marketing strategies in the other countries and this would inevitably impact the definition of performance and which criteria were used in the variable pay plan. Many other differences bring into question the feasibility of defining performance using the same criteria and setting the same standards. The conceptual framework of the plan may be the same, however, and the customization may be limited to the goals. The workforce may differ as well across borders and this may impact the decision about plan eligibility, particularly if there are strong local mores that dictate only senior managers receive variable pay... or that whatever one person gets everyone should get. And the plan may even undermine local management, which may operate in a formal hierarchical structure and use discretion to parcel out rewards. Finally, data privacy laws or conventions mentioned earlier may impede administration, even in two contiguous countries.

National/ethnic cultures are an important consideration relative to variable pay strategies, but so are organizational cultures. Some organizations treat business units as if they were completely separate, while others ensure that there is considerable consistency. Some are paternalistic or egalitarian while others are hard-edged and competitive. Some believe it takes all employees to achieve goals, while others think it would be preferable if a large percentage of employees would just do what they were told – the “people as costs rather than people as assets” mindset. There is great value in defining and assessing the organization’s culture before attempting to design good fit variable pay programs. Honesty about the culture is a prerequisite for success, but a search for the universally good culture should be eschewed. For years Pepsi and Coke have had very different cultures but yet have been successful in the same industry and have done so by aligning their human resource strategies and programs to fit their respective cultures. The culture will have a major impact on eligibility for variable pay plan participation, as well as the rules for allocating award funds.

The workforce culture is defined not only by national/ethnic origin. Generational differences should be considered when designing variable pay plans, since the reactions of a group early in their careers seeking adventure may differ dramatically from those of a group with relatively long service. The stereotyping of a cohort (e.g., Boomers, GenXers) should be avoided, since perspectives will vary widely within any group. But the value differences and views of work should not be ignored either. Occupational differences should also be examined when deciding on the type of variable pay plans

which will cover the workforce. Engineers, Accountants, Sales personnel and Skilled Trades personnel will all have systemic variations in what they view as being an appropriate pay package and the pay relationships that should exist.

The final issue to be discussed is the use of stock-based variable pay plans. These plans are rapidly becoming more prevalent and they tend to cover a broader spectrum of employees today when they are adopted. An insightful quote is "people don't wash rental cars." If employees view themselves as hired hands, only there for this year's harvest and who knows where next year, they are apt to vary in commitment and motivation from those who view an organization as their career-long home... or even the company whose destiny significantly impacts their financial destiny. However, with the adoption of broad-based stock plans goes an added responsibility... preparing employees for stock ownership. The tax and legal implications are significant, but the increasing price volatility in equity markets is even more impactful. Those who are at or near the subsistence level tend to have little discretionary income and they can afford little risk. Mortgage lending officers still have very narrow views as to what constitutes "income," even relative to cash plans with a consistent history of payouts. Stock plans raise another issue about what the employee will be able to portray as a part of income or even personal worth. It is therefore critical for the organization considering the use of stock plans to do the economic education necessary to prepare participants and to ensure they have adequate resources to make ownership and positive experience rather than a personal disaster.

Exhibit1

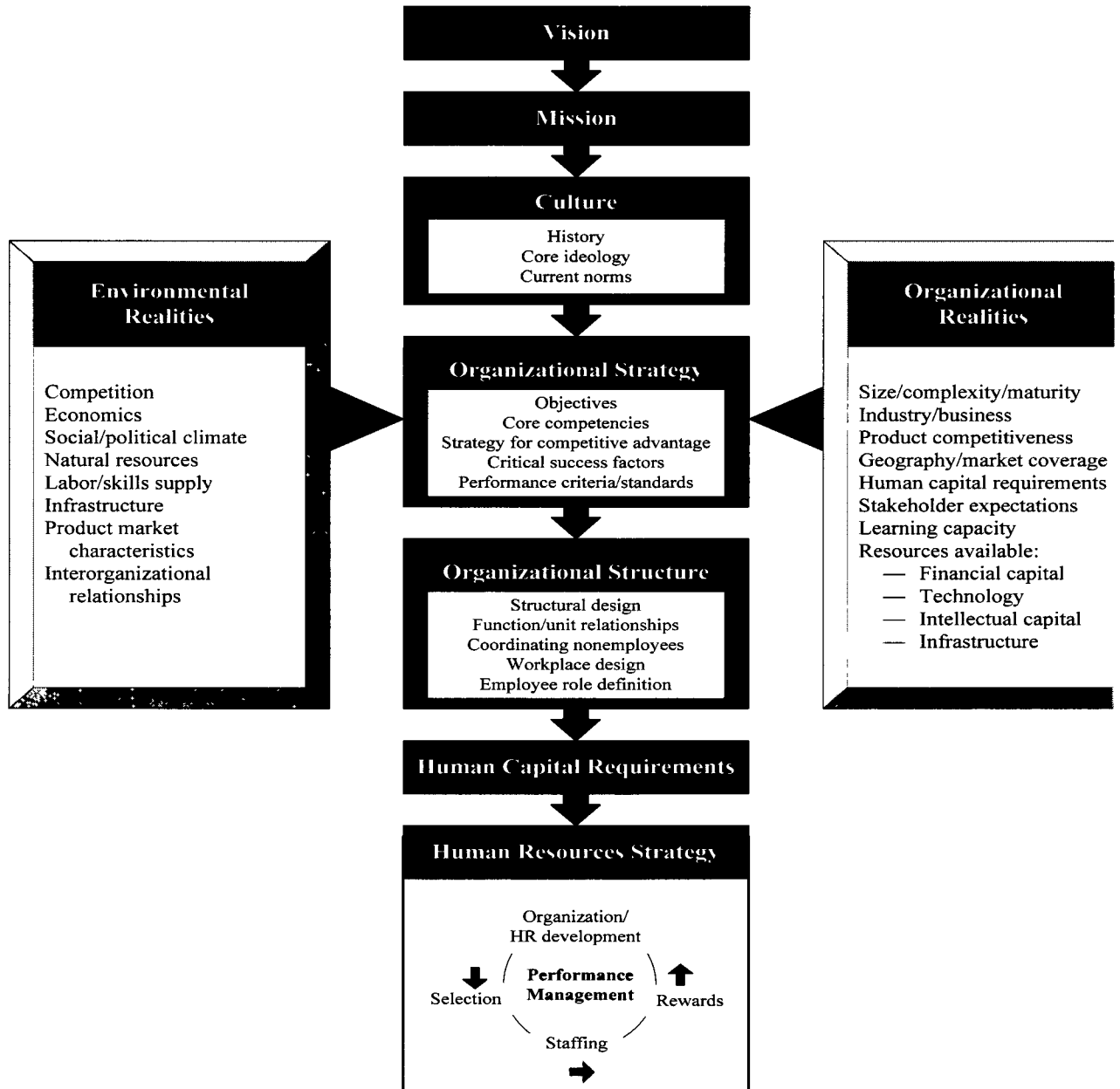


Exhibit 2

Basis For Determining Variable Pay Awards

<i>Performance-→</i>	<i>Organizational</i>	<i>Group</i>	<i>Individual</i>
Top Management	100 %	0 %	0 %
Middle Management	50 %	50 %	0 %
Professional/ Supervisory	25 %	50 %	25 %
Other Employees	25 %	25 %	50 %

Exhibit 3

Variable Pay Award Targets (% of Base)

	<i>Threshold</i>	<i>Target</i>	<i>Maximum</i>
Top Management	25 %	50 %	100 %
Middle Management	15 %	30 %	60 %
Professional/ Supervisory	10 %	20 %	30 %
Other Employees	5 %	10 %	15 %

Exhibit 5

Variable Pay Awards: Two Objectives Of Equal Weight
Goal # 2 (e.g., Market Share)

Goal # 1 (e.g., Profit)	<i>Threshold</i>	<i>Target</i>	<i>Maximum</i>
<i>Maximum</i>	100 %	150 %	200 %
<i>Target</i>	50 %	100 %	150 %
<i>Threshold</i>	25 %	50 %	100%

ROBERT JAMES GREENE
Reward Systems, Inc.
1917 Henley, Glenview, IL 60025 USA
Phone 847.724.6011; E-mail 'rewardsystems@sbcglobal.net'

PROFESSIONAL SERVICES

Consult with organizations on formulating and evaluating human resource management strategies and on designing, implementing, administering and evaluating programs.

EXPERIENCE

Over thirty years in consulting following experience in private sector organizations.

EDUCATION

PhD, Applied Behavioral Science, Northwestern U.
MBA, Human Resource Management, U. of Chicago.
BA, Economics, U. of Texas - El Paso.

PROFESSIONAL CERTIFICATIONS

Senior Professional in Human Resources (SPHR); certified by SHRM
Certified Compensation Professional (CCP); certified by WorldAtWork
Certified Benefits Professional (CBP); certified by WorldAtWork
Global Professional in Human Resources (GPHR); certified by SHRM
Global Remuneration Professional (GRP); certified by WorldAtWork

PROFESSIONAL ACTIVITIES

Society for Human Resource Management: designer and faculty member for professional development programs; past member of Human Resource Certification Institute board, Compensation Committee and Learning System Advisory board.

WorldAtWork (formerly American Compensation Association): course designer and faculty member for CCP certification program for over 20 years; past member of Certification & Credentialing Advisory Board, chair of Research Committee and member of Education Committee; winner of first Keystone Award for attaining the highest level of professional excellence in the compensation field.

Global Remuneration Organization: course designer and faculty member for the GRP certification program at its inception.

DePaul University: Advisory board member: M.S.H.R. program and Management Dept.; faculty member for MBA and MSHR degree program courses in Human Resources.

Past Board member and Executive Vice President of *Chicago Compensation Association* and past Board member of Chicago chapter of *SHRM*. Member of Editorial Advisory Board, *Compensation & Benefits Management*. Past member of the Human Resource Advisory Board for Commerce Clearing House. Member of Academy of Management and Mensa Society.

PUBLISHED WORKS

Over 75 articles, white papers and book chapters on compensation/HR management and on organization culture/change management.

NEWS RELEASE
BUREAU OF LABOR STATISTICS
U.S. DEPARTMENT OF LABOR



For Release: Friday, November 23, 2018

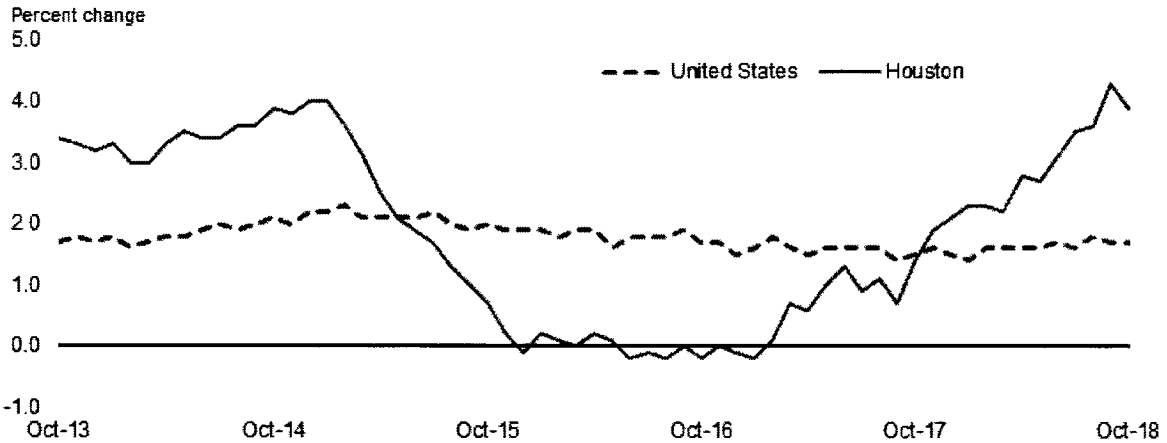
18-1758-DAL

SOUTHWEST INFORMATION OFFICE: Dallas, Texas
Technical information: (972) 850-4800 BLSInfoDallas@bls.gov www.bls.gov/regions/southwest
Media contact: (972) 850-4800

Houston Area Employment — October 2018

Total nonfarm employment in the Houston-The Woodlands-Sugar Land Metropolitan Statistical Area stood at 3,158,800 in October 2018, up 117,800 or 3.9 percent, from one year earlier, the U.S. Bureau of Labor Statistics reported today. During the same period, the national job count increased 1.7 percent. Assistant Commissioner for Regional Operations Stanley W. Suchman noted that among the 12 largest metropolitan areas in the country, Houston ranked first in both the number of jobs added over the year and the annual rate of job growth. (See chart 1 and table 1; the Technical Note at the end of this release contains metropolitan area definitions. All data in this release are not seasonally adjusted; accordingly, over-the-year analysis is used throughout.)

Chart 1. Total nonfarm employment, over-the-year percent change in the United States and the Houston metropolitan area, October 2013–October 2018



Source: U.S. Bureau of Labor Statistics.

Industry employment

In the Houston metropolitan area, professional and business services added the largest number of jobs from October 2017 to October 2018, up 30,600. Job gains were widespread within the sector, but most notable in the employment services industry which added 11,200 jobs, a 12.7-percent increase over the year. Houston’s professional and business services employment rose 6.3 percent since October 2017, compared to the national increase of 2.6 percent. (See table 1 and chart 2.)

Construction added 25,600 jobs locally from October a year ago, the second-largest job gain among the supersectors. Job gains occurred in each of the three reporting industries, with the largest gain in construction of buildings, up 15,900 or 26.9 percent. Area employment in the construction supersector climbed 11.6 percent compared to the 4.4-percent gain for the nation.

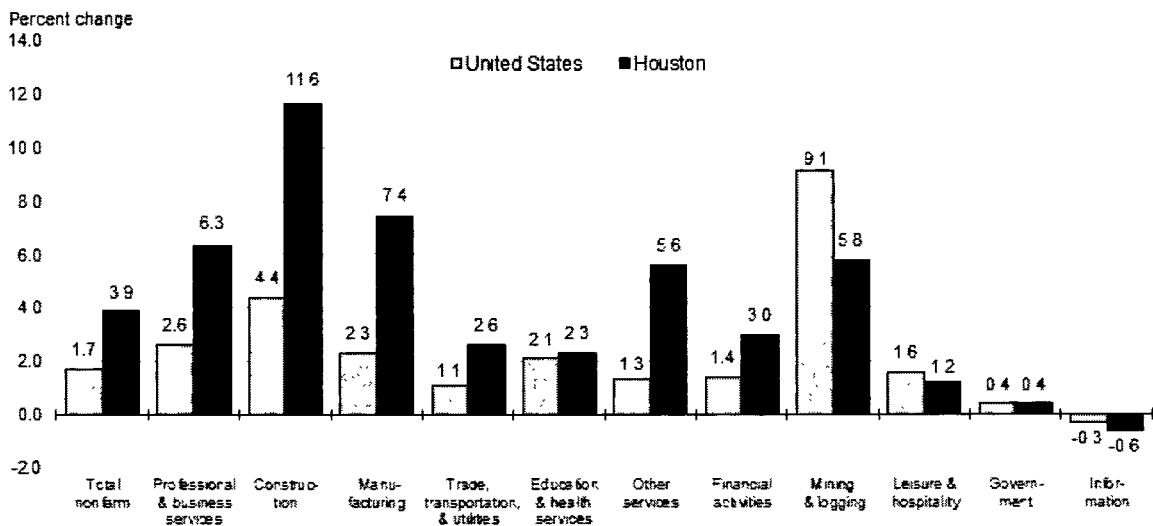
Manufacturing in Houston added 16,100 jobs from October 2017 to October 2018. Local gains occurred in both the durable and non-durable goods manufacturing industries, but durable goods manufacturing produced the bulk of the increase (+13,700). The 7.4-percent increase in manufacturing employment in Houston compared to 2.3 percent nationally. This marked the 12th consecutive month of annual job growth in the local area and the fastest annual rate of gain since July 2012.

Trade, transportation, and utilities, Houston’s largest employer, added 16,000 jobs from October 2017 to October 2018. All three sub-sectors added jobs: retail trade (+5,600); transportation, warehousing, and utilities (+5,600); and wholesale trade (+4,800). Over the year, local employment in the trade, transportation, and utilities sector increased 2.6 percent, more than double the 1.1-percent nationwide increase.

Two other local sectors added at least 6,100 jobs over the year. Houston’s education and health services employment rose 8,800 from October a year ago. This gain represented a 2.3-percent increase locally, compared to the national advance of 2.1 percent. The other services sector in Houston added 6,100 jobs from October 2017; local employment rose 5.6 percent compared to 1.3 percent nationally.

Three additional local sectors had annual job gains of at least 3,700: financial activities (+4,800), mining and logging (+4,500), and leisure and hospitality (+3,700). Government had the smallest employment gain in the Houston area, up 1,800 jobs, or 0.4 percent from October a year ago.

Chart 2. Total nonfarm and industry supersector employment, over-the-year percent change, United States and the Houston metropolitan area, October 2018



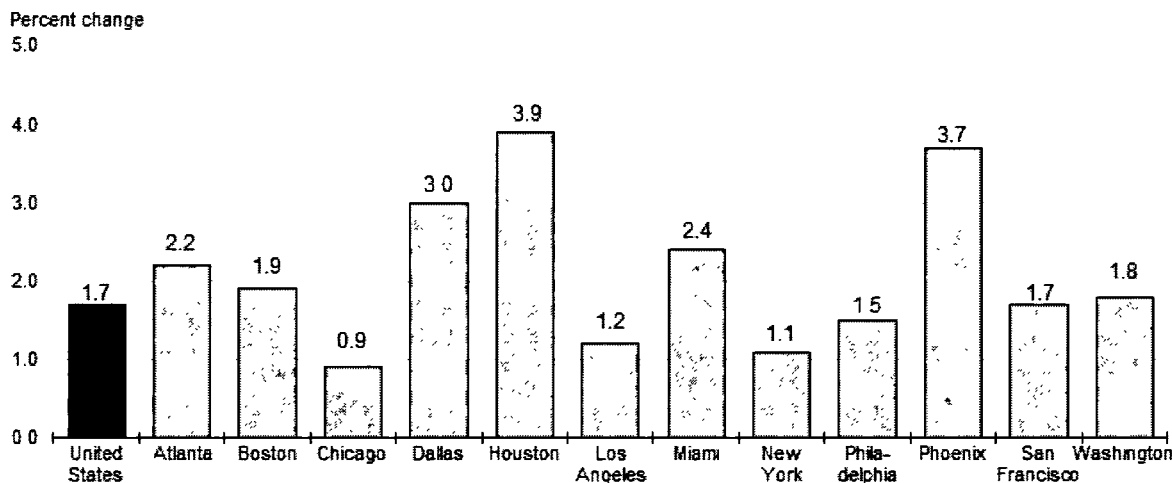
Source: U.S. Bureau of Labor Statistics

Employment in the 12 largest metropolitan areas

Houston-The Woodlands-Sugar Land was 1 of the nation’s 12 largest metropolitan statistical areas in October 2018. All 12 areas had over-the-year job growth during the period, with the rates of job growth in 7 areas exceeding the national increase of 1.7 percent. Houston (+3.9 percent), Phoenix-Mesa-Scottsdale

(+3.7 percent), and Dallas-Fort Worth-Arlington (+3.0 percent) had the fastest rates of job growth. Chicago-Naperville-Elgin (+0.9 percent), New York-Newark-Jersey City (+1.1 percent), and Los Angeles-Long Beach-Anaheim (+1.2 percent) had the slowest rates of job growth. (See chart 3 and table 2.)

Chart 3. Total nonfarm employment, over-the-year percent change, United States and 12 largest metropolitan areas, October 2018



Source: U.S. Bureau of Labor Statistics.

Houston added the largest number of jobs over the year, 117,800, followed by Dallas (+109,000) and New York (+108,500). Chicago had the smallest employment gain over the year, 41,300, followed by San Francisco-Oakland-Hayward (+41,700) and Philadelphia-Camden-Wilmington (+43,600). Annual job gains in the remaining six metropolitan areas ranged from 76,700 in Phoenix to 53,100 in Boston-Cambridge-Nashua.

Over the year, professional and business services added the most jobs in six areas: Atlanta-Sandy Springs-Roswell, Boston, Dallas, Houston, San Francisco, and Washington-Arlington-Alexandria. Construction gained the most jobs in three areas: Chicago, Miami-Fort Lauderdale-West Palm Beach, and Phoenix.

The other services sector recorded the largest employment loss in three areas: Atlanta, Chicago, and San Francisco. Information lost the most jobs in three other areas: Houston, New York, and Philadelphia. Dallas and Washington were the only metropolitan areas to record gains in all supersectors.

Metropolitan area employment data for November 2018 are scheduled to be released on Friday, December 21, 2018, at 10:00 a.m. (ET).

Technical Note

This release presents nonfarm payroll employment estimates from the Current Employment Statistics (CES) program. The CES survey is a Federal-State cooperative endeavor between State employment security agencies and the Bureau of Labor Statistics.

Definitions. Employment data refer to persons on establishment payrolls who receive pay for any part of the pay period that includes the 12th of the month. Persons are counted at their place of work rather than at their place of residence; those appearing on more than one payroll are counted on each payroll. Industries are classified on the basis of their principal activity in accordance with the 2012 version of the North American Industry Classification System.

Method of estimation. CES State and Area employment data are produced using several estimation procedures. Where possible these data are produced using a "weighted link relative" estimation technique in which a ratio of current-month weighted employment to that of the previous-month weighted employment is computed from a sample of establishments reporting for both months. The estimates of employment for the current month are then obtained by multiplying these ratios by the previous month's employment estimates. The weighted link relative technique is utilized for data series where the sample size meets certain statistical criteria.

For some employment series, the sample of establishments is very small or highly variable. In these cases, a model-based approach is used in estimation. These models use the direct sample estimates (described above), combined with forecasts of historical (benchmarked) data to decrease volatility in estimation. Two different models (Fay-Herriot Model and Small Domain Model) are used depending on the industry level being estimated. For more detailed information about each model, refer to the BLS Handbook of Methods.

Annual revisions. Employment estimates are adjusted annually to a complete count of jobs, called benchmarks, derived principally from tax reports that are submitted by employers who are covered under state unemployment insurance (UI) laws. The benchmark information is used to adjust the monthly estimates between the new benchmark and the preceding one and also to establish the level of employment for the new benchmark month. Thus, the benchmarking process establishes the level of employment, and the sample is used to measure the month-to-month changes in the level for the subsequent months.

Reliability of the estimates. The estimates presented in this release are based on sample surveys, administrative data, and modeling and, thus, are subject to sampling and other types of errors. Sampling error is a measure of sampling variability—that is, variation that occurs by chance because a sample rather than the entire population is surveyed. Survey data also are subject to nonsampling errors, such as those which can be introduced into the data collection and processing operations. Estimates not directly derived from sample surveys are subject to additional errors resulting from the specific estimation processes used. The sums of individual items may not always equal the totals shown in the same tables because of rounding.

Employment estimates. Measures of sampling error for the total private employment series are available for metropolitan areas and metropolitan divisions at www.bls.gov/sae/790stderr.htm. Measures of sampling error for more detailed series at the area and division level are available upon request. Measures of sampling error for states down to the supersector level are available on the BLS website at www.bls.gov/sae/790stderr.htm. Measures of nonsampling error are not available for the areas contained in this release. Information on recent benchmark revisions is available online at www.bls.gov/sae/benchmark2017.pdf

Area definitions. The substate area data published in this release reflect the delineations issued by the U.S. Office of Management and Budget, dated July 15, 2015. A detailed list of the geographic definitions is available at www.bls.gov/lau/lausmsa.htm.

The Houston-The Woodlands-Sugar Land Metropolitan Statistical Area includes Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties in Texas.

Additional information

More complete information on the technical procedures used to develop these estimates and additional data appear in Employment and Earnings, which is available online at www.bls.gov/opub/ee/home.htm. Industry employment data for states and metropolitan areas from the Current Employment Statistics program are also available in the above mentioned news releases and from the Internet at www.bls.gov/sae/.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: (202) 691-5200; Federal Relay Service: (800) 877-8339.

Table 1. Employees on nonfarm payrolls by industry supersector, United States and Houston metropolitan area, not seasonally adjusted (numbers in thousands)

Area and Industry	Oct. 2017	Aug. 2018	Sep. 2018	Oct. 2018(p)	Oct. 2017 to Oct. 2018(p)	
					Net change	Percent change
United States						
Total nonfarm.....	148,203	149,406	149,738	150,753	2,550	1.7
Mining and logging	700	763	759	764	64	9.1
Construction	7,182	7,529	7,474	7,500	318	4.4
Manufacturing	12,509	12,823	12,791	12,800	291	2.3
Trade, transportation, and utilities	27,604	27,797	27,715	27,910	306	1.1
Information	2,784	2,787	2,753	2,776	-8	-0.3
Financial activities	8,499	8,654	8,606	8,616	117	1.4
Professional and business services	20,815	21,217	21,185	21,352	537	2.6
Education and health services	23,515	23,430	23,691	24,018	503	2.1
Leisure and hospitality.....	16,100	17,076	16,530	16,360	260	1.6
Other services	5,808	5,910	5,864	5,886	78	1.3
Government.....	22,687	21,420	22,370	22,771	84	0.4
Houston-The Woodlands-Sugar Land, TX Metropolitan Statistical Area						
Total nonfarm.....	3,041.0	3,122.1	3,135.2	3,158.8	117.8	3.9
Mining and logging	77.1	80.7	80.4	81.6	4.5	5.8
Construction	220.2	243.9	243.7	245.8	25.6	11.6
Manufacturing.....	216.7	231.2	232.6	232.8	16.1	7.4
Trade, transportation, and utilities	619.9	634.5	629.8	635.9	16.0	2.6
Information	31.2	31.1	30.8	31.0	-0.2	-0.6
Financial activities	160.4	164.3	164.6	165.2	4.8	3.0
Professional and business services	488.8	518.0	517.0	519.4	30.6	6.3
Education and health services	386.3	394.6	394.1	395.1	8.8	2.3
Leisure and hospitality.....	319.9	325.9	324.1	323.6	3.7	1.2
Other services	108.5	111.9	112.5	114.6	6.1	5.6
Government	412.0	386.0	405.6	413.8	1.8	0.4

(p) preliminary

Table 2. Employees on nonfarm payrolls by industry supersector, 12 largest metropolitan areas, not seasonally adjusted (numbers in thousands)

Area and Industry	Oct. 2017	Aug. 2018	Sep. 2018	Oct. 2018(p)	Oct. 2017 to Oct. 2018(p)	
					Net change	Percent change
Atlanta-Sandy Springs-Roswell, GA						
Total nonfarm.....	2,752.2	2,789.6	2,796.5	2,813.0	60.8	2.2
Mining and logging	1.6	1.6	1.6	1.6	0.0	0.0
Construction	124.8	132.2	133.5	135.1	10.3	8.3
Manufacturing.....	167.8	169.1	169.3	169.0	1.2	0.7
Trade, transportation, and utilities	607.7	616.9	620.1	621.6	13.9	2.3
Information	99.7	96.5	97.6	98.1	-1.6	-1.6
Financial activities	170.9	170.0	169.0	169.8	-1.1	-0.6
Professional and business services	503.1	507.0	508.5	519.0	15.9	3.2
Education and health services	346.5	356.2	358.3	359.8	13.3	3.8
Leisure and hospitality.....	290.7	308.1	302.9	301.3	10.6	3.6
Other services	100.5	98.6	98.4	97.8	-2.7	-2.7
Government.....	338.9	333.4	337.3	339.9	1.0	0.3
Boston-Cambridge-Nashua, MA-NH						
Total nonfarm.....	2,767.5	2,805.7	2,800.6	2,820.6	53.1	1.9
Mining, logging, and construction.....	118.6	125.2	124.2	125.3	6.7	5.6
Manufacturing.....	187.3	192.2	190.5	191.8	4.5	2.4
Trade, transportation, and utilities	427.2	426.5	424.6	428.9	1.7	0.4
Information	79.3	81.7	79.7	80.2	0.9	1.1
Financial activities	185.0	186.4	184.1	183.5	-1.5	-0.8
Professional and business services	489.0	515.6	511.9	515.6	26.6	5.4
Education and health services	586.0	585.1	588.1	597.5	11.5	2.0
Leisure and hospitality.....	275.4	298.2	279.9	276.0	0.6	0.2
Other services	105.0	108.4	104.8	105.3	0.3	0.3
Government.....	314.7	286.4	312.8	316.5	1.8	0.6
Chicago-Naperville-Elgin, IL-IN-WI						
Total nonfarm.....	4,754.6	4,766.3	4,751.5	4,795.9	41.3	0.9
Mining and logging	1.6	1.6	1.6	1.6	0.0	0.0
Construction	182.6	191.8	191.1	193.2	10.6	5.8
Manufacturing.....	416.2	423.0	423.7	424.8	8.6	2.1
Trade, transportation, and utilities	955.6	953.0	944.7	959.1	3.5	0.4
Information	77.9	74.9	74.2	76.1	-1.8	-2.3
Financial activities	305.8	312.5	309.6	310.0	4.2	1.4
Professional and business services	842.3	844.0	838.0	844.9	2.6	0.3
Education and health services	735.5	720.5	726.2	738.7	3.2	0.4
Leisure and hospitality	482.6	507.5	490.2	486.0	3.4	0.7
Other services	195.2	194.5	191.7	191.6	-3.6	-1.8
Government.....	559.3	543.0	560.5	569.9	10.6	1.9
Dallas-Fort Worth-Arlington, TX						
Total nonfarm.....	3,643.4	3,714.1	3,720.8	3,752.4	109.0	3.0
Mining, logging, and construction.....	216.6	231.5	229.9	231.1	14.5	6.7
Manufacturing.....	273.8	279.3	279.5	281.1	7.3	2.7
Trade, transportation, and utilities	778.1	787.4	786.7	791.1	13.0	1.7
Information	82.6	83.9	83.6	84.2	1.6	1.9
Financial activities	296.8	299.8	302.8	303.8	7.0	2.4
Professional and business services	600.3	626.7	623.5	629.5	29.2	4.9
Education and health services	446.6	456.8	457.3	461.1	14.5	3.2
Leisure and hospitality.....	382.9	397.5	392.4	396.3	13.4	3.5
Other services	124.0	128.0	126.8	127.4	3.4	2.7
Government.....	441.7	423.2	438.3	446.8	5.1	1.2
Houston-The Woodlands-Sugar Land, TX						
Total nonfarm.....	3,041.0	3,122.1	3,135.2	3,158.8	117.8	3.9
Mining and logging	77.1	80.7	80.4	81.6	4.5	5.8

Note: See footnotes at end of table.

Table 2. Employees on nonfarm payrolls by industry supersector, 12 largest metropolitan areas, not seasonally adjusted (numbers in thousands) - Continued

Area and Industry	Oct. 2017	Aug. 2018	Sep. 2018	Oct. 2018(p)	Oct. 2017 to Oct. 2018(p)		
					Net change	Percent change	
Construction	220.2	243.9	243.7	245.8	25.6	11.6	
Manufacturing	216.7	231.2	232.6	232.8	16.1	7.4	
Trade, transportation, and utilities	619.9	634.5	629.8	635.9	16.0	2.6	
Information	31.2	31.1	30.8	31.0	-0.2	-0.6	
Financial activities	160.4	164.3	164.6	165.2	4.8	3.0	
Professional and business services	488.8	518.0	517.0	519.4	30.6	6.3	
Education and health services	386.3	394.6	394.1	395.1	8.8	2.3	
Leisure and hospitality	319.9	325.9	324.1	323.6	3.7	1.2	
Other services	108.5	111.9	112.5	114.6	6.1	5.6	
Government	412.0	386.0	405.6	413.8	1.8	0.4	
Los Angeles-Long Beach-Anaheim, CA							
Total nonfarm	6,121.5	6,105.4	6,135.3	6,193.9	72.4	1.2	
Mining and logging	2.9	2.9	3.0	3.0	0.1	3.4	
Construction	246.0	249.3	248.0	249.7	3.7	1.5	
Manufacturing	505.4	504.9	504.7	501.8	-3.6	-0.7	
Trade, transportation, and utilities	1,109.2	1,101.1	1,097.2	1,106.2	-3.0	-0.3	
Information	247.1	248.5	244.4	246.6	-0.5	-0.2	
Financial activities	339.8	340.9	341.0	340.4	0.6	0.2	
Professional and business services	931.7	946.3	946.3	961.2	29.5	3.2	
Education and health services	1,027.1	1,027.8	1,036.6	1,046.8	19.7	1.9	
Leisure and hospitality	752.5	781.8	780.7	783.4	30.9	4.1	
Other services	205.2	201.9	203.3	205.4	0.2	0.1	
Government	754.6	700.0	730.1	749.4	-5.2	-0.7	
Miami-Fort Lauderdale-West Palm Beach, FL							
Total nonfarm	2,636.0	2,664.1	2,668.6	2,700.0	64.0	2.4	
Mining and logging	0.7	0.8	0.8	0.8	0.1	14.3	
Construction	132.5	144.8	145.6	147.3	14.8	11.2	
Manufacturing	90.4	98.0	96.1	97.5	7.1	7.9	
Trade, transportation, and utilities	595.5	601.5	600.3	607.3	11.8	2.0	
Information	50.0	50.5	50.2	51.0	1.0	2.0	
Financial activities	177.1	182.2	181.1	182.2	5.1	2.9	
Professional and business services	440.6	434.6	437.9	446.1	5.5	1.2	
Education and health services	396.2	395.6	398.0	404.0	7.8	2.0	
Leisure and hospitality	314.2	321.6	321.7	325.6	11.4	3.6	
Other services	124.1	125.2	126.6	127.6	3.5	2.8	
Government	314.7	309.3	310.3	310.6	-4.1	-1.3	
New York-Newark-Jersey City, NY-NJ-PA							
Total nonfarm	9,770.9	9,795.8	9,782.2	9,879.4	108.5	1.1	
Mining, logging, and construction	408.0	416.4	415.6	415.5	7.5	1.8	
Manufacturing	364.2	365.0	364.9	365.5	1.3	0.4	
Trade, transportation, and utilities	1,759.1	1,748.2	1,746.8	1,764.0	4.9	0.3	
Information	288.6	286.9	285.1	286.4	-2.2	-0.8	
Financial activities	780.7	787.7	779.7	778.9	-1.8	-0.2	
Professional and business services	1,560.8	1,582.3	1,571.6	1,580.4	19.6	1.3	
Education and health services	1,956.4	1,922.1	1,965.7	2,017.2	60.8	3.1	
Leisure and hospitality	917.9	1,000.0	953.1	929.7	11.8	1.3	
Other services	424.0	430.2	424.7	431.8	7.8	1.8	
Government	1,311.2	1,257.0	1,275.0	1,310.0	-1.2	-0.1	
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD							
Total nonfarm	2,947.4	2,942.9	2,968.2	2,991.0	43.6	1.5	
Mining, logging, and construction	118.4	123.0	122.2	122.8	4.4	3.7	
Manufacturing	180.7	181.0	181.6	181.9	1.2	0.7	

Note: See footnotes at end of table.

Table 2. Employees on nonfarm payrolls by industry supersector, 12 largest metropolitan areas, not seasonally adjusted (numbers in thousands) - Continued

Area and Industry	Oct. 2017	Aug. 2018	Sep. 2018	Oct. 2018(p)	Oct. 2017 to Oct. 2018(p)	
					Net change	Percent change
Trade, transportation, and utilities	525.5	525.3	525.7	531.9	6.4	1.2
Information	44.9	44.7	44.1	43.7	-1.2	-2.7
Financial activities	215.0	218.5	218.4	217.1	2.1	1.0
Professional and business services	476.0	481.7	483.1	488.2	12.2	2.6
Education and health services	658.2	644.8	662.3	671.4	13.2	2.0
Leisure and hospitality	268.4	286.2	270.7	267.6	-0.8	-0.3
Other services	118.9	121.6	120.0	120.6	1.7	1.4
Government.....	341.4	316.1	340.1	345.8	4.4	1.3
Phoenix-Mesa-Scottsdale, AZ						
Total nonfarm.....	2,067.1	2,101.6	2,123.8	2,143.8	76.7	3.7
Mining and logging	3.2	3.2	3.2	3.2	0.0	0.0
Construction	117.2	130.4	131.0	133.9	16.7	14.2
Manufacturing.....	125.2	131.0	131.8	132.3	7.1	5.7
Trade, transportation, and utilities	396.5	400.5	400.7	401.1	4.6	1.2
Information	35.5	37.0	37.8	38.3	2.8	7.9
Financial activities	188.3	190.8	191.2	192.3	4.0	2.1
Professional and business services	353.8	358.2	361.8	368.0	14.2	4.0
Education and health services	313.3	318.6	321.5	325.1	11.8	3.8
Leisure and hospitality	223.0	228.4	229.0	233.0	10.0	4.5
Other services	64.9	65.3	65.0	65.8	0.9	1.4
Government.....	246.2	238.2	250.8	250.8	4.6	1.9
San Francisco-Oakland-Hayward, CA						
Total nonfarm.....	2,418.3	2,442.6	2,448.9	2,460.0	41.7	1.7
Mining and logging	0.5	0.5	0.5	0.5	0.0	0.0
Construction	121.4	125.0	124.7	124.9	3.5	2.9
Manufacturing.....	141.9	143.7	143.6	142.1	0.2	0.1
Trade, transportation, and utilities	385.4	389.1	387.3	386.3	0.9	0.2
Information	107.7	112.3	111.9	111.9	4.2	3.9
Financial activities	142.9	144.7	143.6	143.4	0.5	0.3
Professional and business services	482.1	499.4	496.7	502.4	20.3	4.2
Education and health services	354.5	352.3	356.1	359.5	5.0	1.4
Leisure and hospitality	272.5	278.6	278.7	277.0	4.5	1.7
Other services	86.9	85.7	85.0	85.4	-1.5	-1.7
Government.....	322.5	311.3	320.8	326.6	4.1	1.3
Washington-Arlington-Alexandria, DC-VA-MD-WV						
Total nonfarm.....	3,292.7	3,334.0	3,339.6	3,353.4	60.7	1.8
Mining, logging, and construction	162.5	169.7	169.2	168.6	6.1	3.8
Manufacturing.....	54.9	55.8	55.9	56.1	1.2	2.2
Trade, transportation, and utilities	406.0	414.2	413.8	415.6	9.6	2.4
Information	73.2	74.0	73.7	74.4	1.2	1.6
Financial activities	158.1	161.4	161.6	160.6	2.5	1.6
Professional and business services	749.8	777.7	768.3	770.1	20.3	2.7
Education and health services	448.4	439.1	446.1	449.8	1.4	0.3
Leisure and hospitality	328.8	349.6	339.5	338.5	9.7	3.0
Other services	207.4	211.0	209.5	210.7	3.3	1.6
Government.....	703.6	681.5	702.0	709.0	5.4	0.8

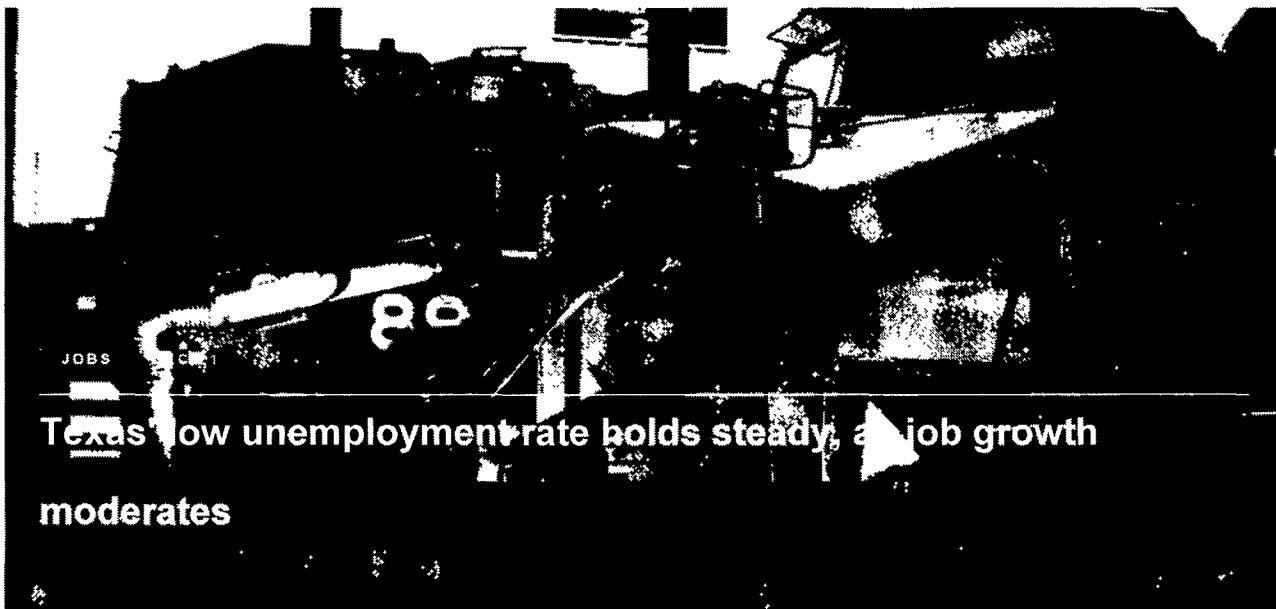
(p) preliminary

Texas' low unemployment rate holds steady, as job growth moderates | Jobs | Dallas News

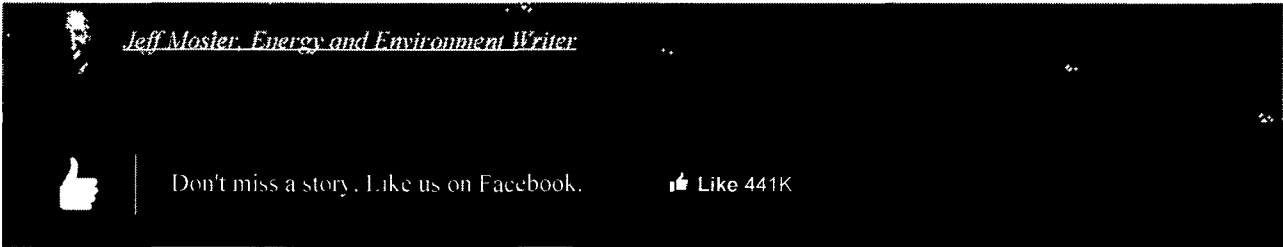
BUSINESS REAL ESTATE AIRLINES RETAIL HEALTH CARE TECHNOLOGY ENERGY
TOP 100 WORKPLACES



Top 100 Places to Work



Texas' low unemployment rate holds steady, as job growth moderates | Jobs | Dallas News



Texas' record unemployment rate didn't budge in November after reaching new lows in back-to-back months, according to the Texas Workforce Commission.

The 3.7 percent jobless rate remains the lowest since 1976 when officials started collecting statewide unemployment data. Texas was one of 42 states — plus the District of Columbia — where the jobless rate held steady in November.

Ruth R. Hughs, chairwoman of the Texas Workforce Commission, said in a statement Friday that the latest number "demonstrates the consistency with which employers in our state create job opportunities for the highly skilled Texas workforce."

Texas jobless rate

(Seasonally adjusted)



SOJFCE Texas Workforce Commission

Texas' low unemployment rate holds steady, as job growth moderates | Jobs | Dallas News

Texas' unemployment rate matches the national figure. The state also added 14,000 non-farm jobs in November and 365,400 jobs in the last 12 months, according to the Texas Workforce Commission.

While Texas was able to retain its record unemployment rate, monthly job creation was smaller than in recent months, according to state officials.

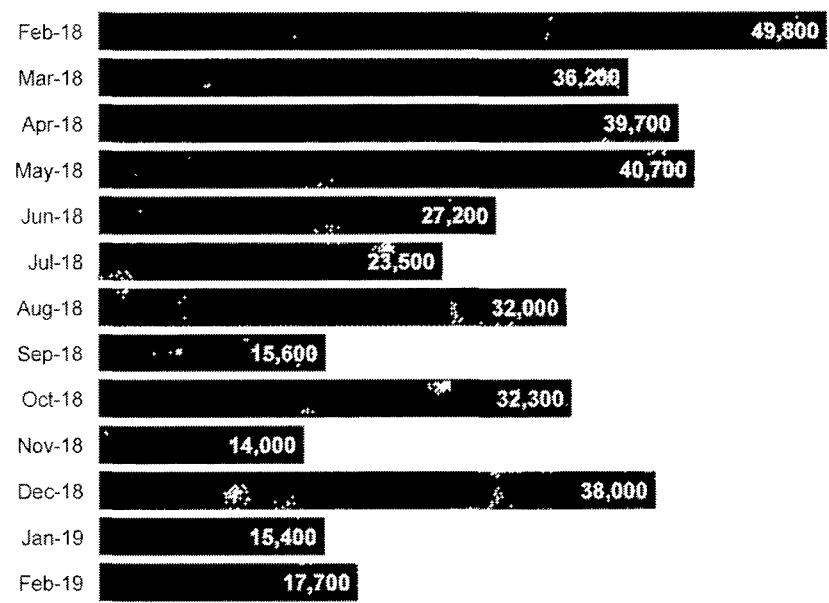
Numbers calculated by the Federal Reserve Bank of Dallas had the job growth slightly higher at 14,500 jobs. That's a 2.4 percent annual growth rate this year.

The November increase was led by manufacturing, which added 9,100 new jobs, according to state data. The trade, transportation and utilities sector, which includes retail, trailed only slightly with 8,900 new jobs.

On the opposite end, the leisure and hospitality sector posted a loss of 8,600 jobs in November, almost matching its October gain.

Jobs gained in Texas by month

The last time the state lost jobs in a month was March 2016.



SOURCE: Texas Workforce Commission

Texas' low unemployment rate holds steady, as job growth moderates | Jobs | Dallas News

Chris Slijk, assistant economist at the Dallas Fed, said short-term changes shouldn't necessarily be a cause for concern or excitement.

"It's a moderate, steady pace," he said about Texas growth. "A little bit of slowing compared to the last few months. But month-to-month, these numbers tend to be volatile."

Slijk said the particularly strong performance from the state's manufacturing sector was a little surprising. The Dallas Fed conducts a monthly Texas Manufacturing Outlook Survey. Slijk said the most recent responses had pointed to a "softening of growth."

The mining and logging sector, which includes oil and gas, posted a solid increase of 1,300 jobs in November and has been 2018's big winner. Its job base has grown by more than 16 percent in the past year.

The Permian Basin added just one additional rig in the past week. But it still has 65 more drilling rigs now than a year ago, according S&P Global Platts Rig Count.

But other factors could slow that growth.

"The recent sharp decline in oil prices and strength in the international value of the dollar means slowing is likely for the energy and manufacturing sectors — which grew at a strong pace for most of this year," said Keith R. Phillips, senior economist at the Dallas Fed.

The unemployment rate for Dallas-Fort Worth also remained steady at 3.2 percent, a half-a-percentage point better than the state. That matched the local jobless rate from a year ago.

Retail and construction were November's best performers locally.

The statewide jobs numbers are seasonally adjusted, so they do take into account the oversize influence the winter holidays have on the market.

In October, job placement firm Challenger Gray & Christmas said national brands had announced plans to hire 704,000 people for the holidays. That tops every other year since the firm started tracking seasonal hiring announcements in

Texas' low unemployment rate holds steady, as job growth moderates | Jobs | Dallas News

2012.

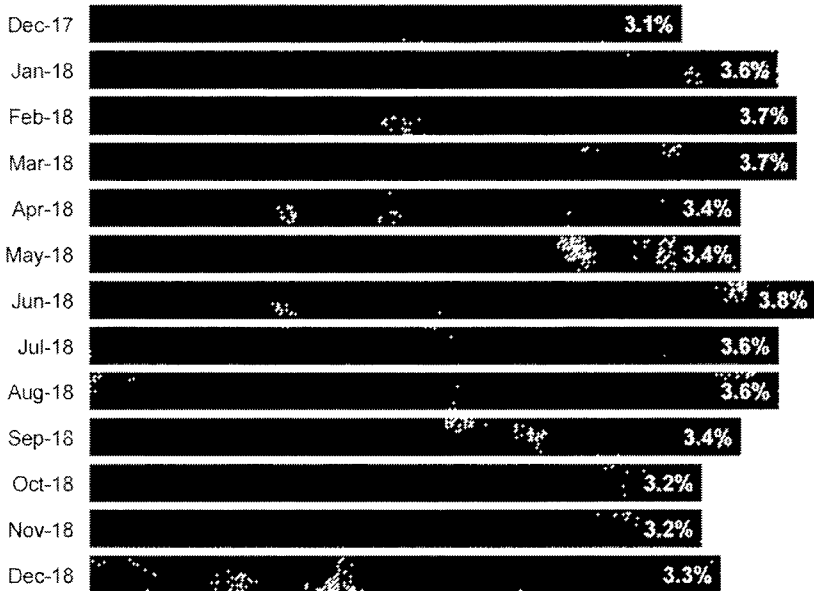
The Midland area continued to lead the state with a 2.1 percent unemployment rate, courtesy of the thriving oil and natural gas industry in the Permian Basin.

While there are predictions of a slowdown in Texas, Slijk said the state's economy still appears healthy.

"The data seems to point toward maybe a slowing to around a similar rate of growth as what we saw in 2015, '16," Slijk said. "It's still continued growth. ... In Texas, we're a little bit spoiled."

Dallas-Fort Worth jobless rate

(Not seasonally adjusted)



SOURCE: Texas Workforce Commission

**APPLICATION OF CENTERPOINT
ENERGY HOUSTON ELECTRIC, LLC
FOR AUTHORITY TO CHANGE RATES**

§
§
§

**PUBLIC UTILITY COMMISSION
OF TEXAS**

DIRECT TESTIMONY

OF

TIMOTHY S. LYONS

ON BEHALF OF

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

April 2019

TABLE OF CONTENTS

EXECUTIVE SUMMARY OF TIMOTHY S. LYONS 1

I. INTRODUCTION 2

II. PURPOSE AND OVERVIEW OF TESTIMONY 3

III. LEAD-LAG STUDY APPROACH..... 5

 A. Revenue Lag 6

 B. Expense Leads 7

 1. O&M Expenses 7

 2. Current Federal Income Tax Expense..... 11

 3. Taxes Other than Income Taxes 12

 C. Other Adjustments – Working Funds and Other 13

IV. CONCLUSION..... 14

LIST OF EXHIBITS

Exhibit TSL-1	Previous Experience
Exhibit TSL-2	Summary of Lead-Lag Study
Exhibit TSL-3	Cash Working Capital Calculations

1 **EXECUTIVE SUMMARY OF TIMOTHY S. LYONS**

2 I am sponsoring the lead-lag study that was used to determine the cash working
3 capital (“CWC”) requirement for CenterPoint Energy Houston Electric, LLC
4 (“CenterPoint Houston” or the “Company”) in this proceeding.

5 The term “cash working capital” refers to the net funds required to finance goods
6 and services used to provide service from the time those goods and services are paid out
7 by the Company to the time that payment is received from customers. A lead-lag study
8 measures the number of days from the time customers receive service to the time customer
9 payments are available to the Company (i.e., the “revenue lag”) and the number of days
10 from the time the Company receives goods and services used to provide service to the time
11 payments are made for the goods and service (i.e., the “expense lead”). The revenue lag
12 and expense leads are measured in days and then dollar-weighted to determine lead-lag
13 days. The lead-lag days are then multiplied by adjusted test year expenses to determine
14 the Company’s CWC requirement. The CWC requirement is included in the Company’s
15 rate base.

16 The results of the lead-lag study are shown in Exhibit TSL-2 and were provided to
17 Company witness Kristie L. Colvin to be applied to the Company’s adjusted test year
18 expenses from January 1, 2018 through December 31, 2018 to determine the Company’s
19 CWC requirement. The Company’s lead-lag study is fair and reasonable, is generally
20 consistent with the most recent study approved for the Company, is consistent with Public
21 Utility Commission of Texas precedent, and should be used to calculate the CWC
22 requirement included in the Company’s rate base.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

DIRECT TESTIMONY OF TIMOTHY S. LYONS

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Timothy S. Lyons. My business address is 1900 West Park Drive, Suite 250, Westborough, Massachusetts 01581.

Q. PLEASE DESCRIBE YOUR CURRENT POSITION.

A. I am a Partner at ScottMadden, Inc. (“ScottMadden”).

Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE AND QUALIFICATIONS.

A. I have over 30 years of experience in the energy industry. I started my career in 1985 at Boston Gas Company, eventually becoming Director of Rates and Revenue Analysis. In 1993, I moved to Providence Gas Company, eventually becoming Vice President of Marketing and Regulatory Affairs. Starting in 2001, I held a number of management consulting positions in the energy industry first at KEMA and then at Quantec, LLC. In 2005, I became Vice President of Sales and Marketing at Vermont Gas Systems, Inc. before joining Sussex Economic Advisors, LLC (“Sussex”) in 2013. Sussex was acquired by ScottMadden on June 1, 2016.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I hold a Bachelor’s degree from St. Anselm College, a Master’s degree in Economics from The Pennsylvania State University, and a Master’s degree in Business Administration from Babson College.

1 **Q. HAVE YOU PREVIOUSLY SPONSORED TESTIMONY BEFORE ANY**
2 **REGULATORY AUTHORITIES?**

3 A. Yes. A summary of my testimony experience along with my professional and
4 educational experience is included in Exhibit TSL-1.

5 **II. PURPOSE AND OVERVIEW OF TESTIMONY**

6 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

7 A. The purpose of my testimony is to sponsor the results of the lead-lag study. The
8 lead-lag study was used to determine CenterPoint Energy Houston Electric, LLC's
9 ("CenterPoint Houston" or the "Company") cash working capital ("CWC")
10 requirement, which is included in the Company's rate base.

11 **Q. HAVE YOU PREPARED ANY EXHIBITS IN CONNECTION WITH YOUR**
12 **TESTIMONY?**

13 A. Yes. My testimony is supported by the exhibits listed in the Table of Contents.
14 The exhibits were prepared by me or under my direction.

15 **Q. PLEASE DEFINE THE TERM "CASH WORKING CAPITAL."**

16 A. The term "cash working capital" refers to the net funds required by the Company
17 to finance goods and services used to provide service to customers from the time
18 those goods and services are paid for by the Company to the time that payment is
19 received from customers. Goods and services considered in the lead-lag study
20 include: operations and maintenance ("O&M") expenses, including labor and non-
21 labor expenses; federal, state, and local taxes; and employment taxes.

22 **Q. HOW WAS THE COMPANY'S CWC REQUIREMENT DETERMINED?**

23 A. The lead-lag study compares differences between the Company's revenue lag and
24 expense leads. The revenue lag represents the number of days from the time

1 customers receive their electric service to the time customers pay for electric
2 service, i.e., when the funds are available to the Company. The longer the revenue
3 lag, the more cash the Company needs to finance its day-to-day operations. The
4 expense lead represents the number of days from the time the Company receives
5 goods and services used to provide electric service to the time payments are made
6 for those goods and services, i.e., when the funds are no longer available to the
7 Company. The longer the expense lead, the less cash the Company needs to fund
8 its day-to-day operations. Together, the revenue lag and expense leads are used to
9 measure the lead-lag days. The lead-lag days were then applied to the Company's
10 adjusted test year expenses to derive the CWC requirement, which was included in
11 the Company's rate base.

12 **Q. ARE THE RESULTS OF THE LEAD-LAG STUDY AN ACCURATE**
13 **MEASUREMENT OF THE COMPANY'S CWC NEEDS?**

14 A. Yes. The lead-lag study provides an accurate representation of the Company's
15 CWC requirements during the test year. Furthermore, the methodology is
16 consistent with the lead-lag study approved in the Company's most recent rate case
17 proceeding, Docket No. 38339,¹ except as noted herein, and is consistent with
18 16 Texas Administrative Code § 25.231(c)(2)(B)(iii) ("TAC").

¹ *Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates*, Docket No. 38339, Order on Rehearing (June 23, 2011).

1 **III. LEAD-LAG STUDY APPROACH**

2 **Q. PLEASE SUMMARIZE THE RESULTS OF THE LEAD-LAG STUDY YOU**
3 **CONDUCTED FOR THE COMPANY.**

4 A. The results of the lead-lag study are summarized in Exhibit TSL-2. The results of
5 the lead-lag study were provided to the Company and applied to adjusted test year
6 expenses from January 1, 2018 through December 31, 2018 to derive the
7 Company's proposed CWC requirement.

8 **Q. PLEASE DESCRIBE THE APPROACH USED TO DEVELOP THE**
9 **LEAD-LAG STUDY.**

10 A. The lead-lag study compares differences between the Company's revenue lag and
11 expense leads. The revenue lag measures the number of days from the time electric
12 service is provided to customers to the time payment is received from customers.
13 The expense leads measure the number of days from the time goods and services
14 used to provide electric service are provided to the Company to the time payments
15 are made by the Company for those goods and services. The lag and leads are
16 measured in days for individual expenses, converted to "dollar-days" that reflect a
17 weighting by expense amount, and then summed across all expenses.

18 **Q. PLEASE DESCRIBE THE FINANCIAL DATA USED IN THE LEAD-LAG**
19 **STUDY.**

20 A. The lead-lag study was based on the Company's financial data from October 1,
21 2017 through September 30, 2018. The data included customer billing, O&M
22 expenses, and federal, state, local, and employment taxes. The financial data
23 generally included service periods, billing and payment dates, and amounts.

1 **Q. HAS THE COMPANY APPLIED YOUR STUDY RESULTS TO THE**
2 **COMPANY'S ADJUSTED TEST YEAR?**

3 A. Yes. The study results were provided to the Company, which then applied the
4 results to the Company's adjusted test year expenses to derive the Company's test
5 year CWC requirement.

6 **Q. IS THE STUDY DATA REFLECTIVE OF THE COMPANY'S REVENUE**
7 **LAGS AND EXPENSE LEADS DURING THE TEST YEAR?**

8 A. Yes.

9 **A. Revenue Lag**

10 **Q. PLEASE DESCRIBE DEVELOPMENT OF THE REVENUE LAG.**

11 A. The revenue lag measures the number of days from the time electric service is
12 provided to customers to the time payment is received from customers. The
13 revenue lag consists of three components: (1) the service lag; (2) the billing lag;
14 and (3) the collection lag.

15 **Q. WHAT IS THE SERVICE LAG?**

16 A. The service lag measures the average number of days in the service period; i.e., the
17 time between the start and end of the billing month. The point in time at which
18 meters are read indicates the end of the billing month. The service lag in this
19 lead-lag study was based on the midpoint of the service period, which reflects that
20 electricity is delivered evenly over the service period.

21 **Q. WHAT IS THE BILLING LAG?**

22 A. The billing lag measures the number of days from the time meters are read to the
23 time bills are recorded and sent to customers. The billing lag includes time for
24 review and validation of billed usage and dollars. The billing lag in this lead-lag