Willis Towers Watson

Duke Energy Corporation

Postemployment Welfare Benefit Plans

Actuarial Valuation Report
Postemployment Benefit Cost and Employer Cash Flow for Fiscal Year Ending December 31, 2017

September 2017

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Purposes of valuation

Duke Energy engaged Towers Watson Delaware Inc., a subsidiary of Willis Towers Watson PLC ("Willis Towers Watson") to value their postemployment benefit plans.

As requested by Duke Energy Corporation (the Company), this report provides information for financial statement and disclosure purposes required by FASB Accounting Standards Codification Topic 712 (ASC 712) for your fiscal year ending December 31, 2017 for the Legacy Duke Energy and Legacy Progress Energy Postemployment Welfare Benefit Plans.

The exhibits present financial reporting information in accordance with ASC 712, including net balance sheet position of the Plan, the postemployment benefit cost, employer cash flow, participant information, the provisions on which the valuation is based, and the actuarial assumptions and methods used in the calculations.

Limitations

This valuation has been conducted for the purposes described above and may not be suitable for any other purpose. In particular, please note the following:

1. There may be certain events that have occurred since the valuation date that are not reflected in the current valuation.

2. This report does not provide information for plan reporting under ASC 960 or ASC 965.

Actuarial certification

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. However, please note the information discussed below regarding this valuation.

Reliances

In preparing the results presented in this report, we have relied upon information regarding plan provisions, participants, assets and sponsor accounting policies and methods provided by Duke Energy and other persons or organizations designated by Duke Energy. We have relied on all the data and information provided as being complete and accurate. We have reviewed this information for overall reasonableness and consistency, but have neither audited nor independently verified this information. Based on discussions with the plan sponsor, assumptions or estimates may have been made if data were not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

The results presented in this report are directly dependent upon the accuracy and completeness of the underlying data and information. Any material inaccuracy in the data, assets, plan provisions or other information provided to us may have produced results that are not suitable for the purposes of this report and such inaccuracies, as corrected by the Duke Energy, may produce materially different results that could require that a revised report be issued.

Measurement of benefit obligations, plan assets and balance sheet adjustments

Census date/measurement date

The measurement date is December 31, 2016. The benefit obligations were measured as of Duke Energy's December 31, 2016 fiscal year end and are based on participant data as of the census date, December 31, 2016.

Plan assets and balance sheet adjustments

Information about the fair value of plan assets was furnished to us by Duke Energy. Duke Energy also provided information about the general ledger account balances for the other post-employment benefit plan cost at December 31, 2016, which reflect the expected funded status of the plans before adjustment to reflect the funded status based on the year-end measurements. Willis Towers Watson used information supplied by Duke Energy regarding post-employment benefit asset, post-employment benefit liability and amounts recognized in accumulated other comprehensive income as of December 31, 2016. This data was reviewed for reasonableness and consistency, but no audit was performed.

Assumptions and methods under U.S. GAAP

As required by U.S. GAAP, the actuarial assumptions and methods employed in the development of the financial reporting results have been selected by Duke Energy. Willis Towers Watson has concurred with these assumptions and methods. ASC 712 requires that each significant assumption "individually represent the best estimate of a particular future event".

The results shown in the attached have been developed based on actuarial assumptions that, to the extent evaluated by Willis Towers Watson, we consider to be reasonable. Other actuarial assumptions could also be considered to be reasonable. Thus, reasonable results differing from those presented in this report could have been developed by selecting different reasonable assumptions.

A summary of the assumptions and methods used is provided in Appendix A. Note that any subsequent changes in methods or assumptions for the December 31, 2016 measurement date will change the results shown in this report.

Nature of actuarial calculations

The results shown in this report are estimates based on data that may be imperfect and on assumptions about future events that cannot be predicted with any certainty. The effects of certain plan provisions may be approximated, or determined to be insignificant and therefore not valued. Reasonable efforts were made in preparing this valuation to confirm that items that are significant in the context of the actuarial liabilities or costs are treated appropriately, and are not excluded or included inappropriately. Any rounding (or lack thereof) used for displaying numbers in this report is not intended to imply a degree of precision, which is not a characteristic of actuarial calculations.

If overall future plan experience produces higher benefit payments than assumed, the relative level of plan costs reported in this valuation will likely increase in future valuations (and vice versa). Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors, including: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for the measurements (such as the end of an amortization period), and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements.

Limitations on use

This report is provided subject to the terms set out herein and in our engagement letter and the accompanying General Terms and Conditions of Business. This report is provided solely for Duke Energy's use and for the specific purposes indicated above. It may not be suitable for use in any other context or for any other purpose.

The information contained in this report was prepared for the internal use of Duke Energy and its auditors in connection with our actuarial valuation of the postemployment benefit plans as described in Purposes of Valuation above. It is not intended for and may not be used for other purposes, and we accept no responsibility or liability in this regard. Duke Energy may distribute this actuarial valuation report to the appropriate authorities who have the legal right to require Duke Energy to provide them this report, in which case Duke Energy will use best efforts to notify Willis Towers Watson in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Willis Towers Watson's prior written consent. Willis Towers Watson accepts no responsibility for any consequences arising from any other party relying on this report or any advice relating to its contents.

Professional qualifications

The undersigned consulting actuaries are members of the Society of Actuaries and meet the "Qualification Standard for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to pension and other postretirement benefit plans. Our objectivity is not impaired by any relationship between Duke Energy and our employer, Towers Watson Delaware Inc., a subsidiary of Willis Towers Watson PLC ("Willis Towers Watson").

The Pricing Specialist below is responsible for developing and/or determining the reasonableness of retiree welfare plan trend and participation assumptions as well as assumed per capita claims costs (including the aging/morbidity assumption if applicable). The Valuation Actuary is responsible for other aspects of the valuation (e.g., developing and/or reviewing the reasonableness of other valuation assumptions and methods, ensuring that the valuation model reasonably reflects the substantive plan and actual plan operation, preparing demographic data, performing the valuation, implementing the correct accounting or funding calculations, etc.)

Lori Blasdell, FSA, CFA
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Valuation Actuary

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Valuation Actuary

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Pricing Specialist

September 2017

Section 1: Summary of key results

This report summarizes financial results for Duke Energy Corporation's postemployment welfare benefit plans based on actuarial valuations as of December 31, 2016 and December 31, 2015 in accordance with FASB Accounting Standards Codification Topic 712 (ASC 712).

Accounting Results — Legacy Duke Energy	December 31, 2016	December 31, 2015
Funded Position:		
► Accumulated Postemployment Benefit Obligation (APBO)	$ (47,359,412)	$ (43,973,912)
► Fair Value of Assets	0	0
► Funded Status	$ (47,359,412)	$ (43,973,912)
Amount Recognized in Statement of Financial Position	$ (37,923,162)	$ (51,303,735)
(Gains)/Losses Recognized	$ 9,436,250	$ (7,329,823)

The net actuarial loss as of December 31, 2016 is primarily attributed to:

- Losses for actual claims paid higher than expected,
- Losses due to updates in the actuarial assumptions for per capita claims costs, and offsetting
- Gains for more exits from disability status than expected

Accounting Results – Legacy Progress Energy		December 31, 2016		December 31, 2015
Non-Union LTD Health and Life Benefits:				
Funded Position:				
► Accumulated Postemployment Benefit Obligation (APBO)	$	(19,167,582)	$	(14,340,345)
► Fair Value of Assets		0		0
► Funded Status	$	(19,167,582)	$	(14,340,345)
Amount Recognized in Statement of Financial Position	$	(13,820,419)	$	(23,553,299)
(Gains)/Losses Recognized	$	5,347,163	$	(9,212,954)
Florida Power Union LTD Income Benefits:				
Funded Position:				
► Accumulated Postemployment Benefit Obligation (APBO)	$	(7,929,062)	$	(8,096,652)
► Fair Value of Assets	$	1,029,132	$	1,790,401
► Funded Status	$	(6,899,930)	$	(6,306,251)
Amount Recognized in Statement of Financial Position	$	(6,306,316)	$	(6,183,148)
(Gains)/Losses Recognized	$	593,614	$	123,103

Significant reasons for net actuarial gains/losses as of December 31, 2016 include:

- Net actuarial loss in the Non-Union Health and Life Plan due to actual claims paid higher than expected and updates in the actuarial assumptions for per capita claims costs, offset by actuarial gains for fewer reported disabled employees than expected and more exits from disability status than expected.
- Net actuarial loss in the Florida Union LTD Income Plan due to fewer than expected recoveries from disability status and an increase in benefit for one participant.

Section 2: Accounting exhibits

2.1 Basic Results for Legacy Duke Energy

APBO		December 31, 2016		December 31, 2015
Health care (medical and dental) continuation	$	41,068,929	$	37,649,056
Life insurance continuation		6,290,483		6,324,856
Total APBO	$	47,359,412	$	43,973,912

Estimated APBO for each Additional Long-Term Disabled Participant		December 31, 2016		December 31, 2015
Estimated APBO	$	105,000	$	90,000

Key Economic Assumptions	December 31, 2016	December 31, 2015
Discount rate:		
► Legacy Cinergy participants disabled before 4/1/2006	2.49%	2.38%
► All others	0.00%	0.00%
Health care cost trend rate:		
► Medical	7.00% (2017) grading to 4.75% (2023)	7.50% (2016) grading to 4.75% (2023)
► Prescription drugs	7.00% (2017) grading to 4.75% (2023)	7.50% (2016) grading to 4.75% (2023)
► Dental	4.00%	4.00%

2.2 Legacy Duke Energy Employer Cash Flow

		Expected 2017
Health Care (Medical and Dental) Continuation:		
► Gross plan benefits and administrative expenses	$	11,337,639
► Employee contributions		(1,574,657)
► Net employer cash flow	$	9,762,982
Life Insurance Continuation:		
► Gross plan benefits and administrative expenses	$	1,118,422
► Employee contributions		0
► Net employer cash flow	$	1,118,422
Total		
Total Employer Cash Flow:		
► Amount	$	10,881,404

2.3 Basic Results for Legacy Progress Energy

APBO		December 31, 2016		December 31, 2015
Non-Union LTD Health and Life Plan	$	19,167,582	$	14,340,345
Florida Power Union LTD Income Plan		7,929,062		8,096,652
Total APBO	$	27,096,644	$	22,436,997

Estimated APBO for each Additional Long-Term Disabled Participant		December 31, 2016		December 31, 2015
Non-Union LTD Health and Life Plan	$	125,000	$	90,000
Florida Power Union LTD Income Plan		120,000		120,000
Total APBO	$	245,000	$	210,000

Key Economic Assumptions	December 31, 2016	December 31, 2015
Discount rate:		
► Participants disabled before 7/1/2012	2.49%	2.38%
► All others	0.00%	0.00%
Health care cost trend rate:		
► Medical	7.00% (2017) grading to 4.75% (2023)	7.50% (2016) grading to 4.75% (2023)
► Prescription drugs	7.00% (2017) grading to 4.75% (2023)	7.50% (2016) grading to 4.75% (2023)
► Dental	4.00%	4.00%
► Vision	2.00%	2.00%

2.4 Legacy Progress Energy Employer Cash Flow

		Expected 2017
Non-Union LTD Health and Life Benefits:		
Health Care (Medical, Dental and Vision) Continuation:		
► Gross plan benefits and administrative expenses	$	3,336,940
► Employee contributions		(676,611)
► Net employer cash flow	$	2,660,329
Life Insurance Continuation:		
► Gross plan benefits and administrative expenses	$	711,439
► Employee contributions		0
► Net employer cash flow	$	711,439
Total		
Total Employer Cash Flow:		
► Amount	$	3,371,768
Florida Power Union LTD Income Benefits:		
Total:	$	713,496

Section 3: Participant data

Legacy Duke Energy Postemployment Welfare Benefit Plans

	December 31, 2016	December 31, 2015
Number of disabled employees receiving:		
► Medical and/or dental benefits	395	400
— Adult dependents	226	232
— Children dependents	78	75
► Life insurance	443	421
Number of surviving spouses receiving:		
► Medical and/or dental benefits	179	186
— Children dependents	65	68

Legacy Progress Long-Term Disability Benefit Plans

	December 31, 2016	December 31, 2015
Number of disabled employees:		
► Non-Union LTD health and life benefits	183	188
► Florida Power Union LTD income benefits	98	102

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Appendix A:

Statement of Actuarial Assumptions and Methods

A.1: Legacy Duke Energy Postemployment Welfare Benefit Plans

Economic Assumptions

Discount rate:

▸ Legacy Cinergy participants who became disabled prior to 4/1/2006	2.49%
▸ Others	0.00%

Long-Term Disability Assumptions

Rates of Disability Termination (recovery or death)	1987 Group Long-Term Disability Valuation Table (GLTD) for 6 month elimination periods
Disability Mortality	RP-2014 Disabled Mortality Table projected generationally with Scale BB-2D
Healthy Mortality	RPH-2014 Healthy Mortality Tables for Annuitants with no collar adjustment projected generationally with Scale BB-2D, increased by 15%
Rates of Disability Incidence	Varies by age group as shown below:

Age	Rate	Age	Rate
<20	0.00118	45-49	0.00423
20-24	0.00118	50-54	0.00719
25-29	0.00115	55-59	0.01326
30-34	0.00160	60-64	0.01694
35-39	0.00202	65+	0.01500
40-44	0.00274		

Social Security Medicare Eligibility	95% of disabled participants are assumed to be eligible for Medicare after 29 months of disability

Health Care Benefit Assumptions

Average per capita medical claim cost for 2017 (medical, including prescription drugs):

- Healthy Active Employees:

	Annual claim cost
Employee	$6,975
Dependent spouse	9,767
Dependent child(ren)	4,882
Dependent family	11,162

- Disableds:
  - Not Medicare Eligible: Claim cost for disabled participants is based on a multiplier of the healthy employee's cost based on duration from initial disability as shown below:

Years of Disability	Multiplier
0-1	11.7
1-2	8.4
2-3	4.1
3-4	3.5
4-5	3.2
5-6	2.9
>6	2.9

  - Medicare Eligible: 31% of the pre-Medicare claim cost
- Surviving Dependents:

	Annual claim cost (net of participant contributions)
Surviving spouse	$ 6,840
Surviving spouse plus child(ren)	9,080
Surviving child	2,908

Medicare Part D Reimbursement: $950 annually

Health Care Benefit Assumptions (continued)

Average participant contributions for medical coverage for 2017 (medical, including prescription drugs):

	Annual contribution
Employee	$ 1,411
Employee plus spouse	5,935
Employee plus child(ren)	3,257
Family	6,354

Average per capita dental claim cost for 2017:

- Disabled Employees and Dependents:

	Annual claim cost
Employee	$ 462
Employee plus spouse	924
Employee plus child(ren)	1,008
Family	1,602

- Surviving Dependents:

	Annual claim cost (net of participant contributions)
Surviving spouse	$282
Surviving spouse plus child(ren)	684
Surviving child	342

Average participant contributions for dental coverage for 2017:

	Annual contribution
Employee	$132
Employee plus spouse	312
Employee plus child(ren)	336
Family	588

Health Care Benefit Assumptions (continued)

Health care cost trend rate:	
► Medical (including prescription drugs)	7.00% (for 2017) grading to 4.75% in 2023
► Medicare Part D subsidy	2.50%
► Dental	4.00%
Employee contribution trend rate:	Same as health care cost trend
Administrative expenses	Included in above per capita costs
Duration of benefits	Benefit is payable until employee’s assumed retirement age of 65. 50% of surviving spouses are expected to remarry immediately. 75% of eligible children are assumed to terminate coverage at age 22, while 25% are assumed to remain covered until age 26.
Provision for disabilities incurred but not reported	Liabilities for reported claims were increased 16% to account for disabilities incurred but not reported as of the valuation date

Methods

Census Date	December 31, 2016
Measurement Date	December 31, 2016
Accumulated Postemployment Benefit Obligation (APBO)	Actuarial present value of benefits to current recipients.
Estimated APBO for each Additional Long-Term Disabled Participant	The APBO for any additional long-term disabled participant was estimated as the average APBO for all participants who became new disabled participants in the plan over the past 3 years.
Development of Health Care Costs	Per capita claims costs for disabled participants are derived from active per capita claims costs, increased to reflect the experience and higher morbidity of disabled participants. These claim costs are further graded on duration from initial disability to reflect the decreasing nature of disabled morbidity over time.

Benefits Not Valued

All benefits described in the Plan Provisions section were valued.

Changes in Assumptions and Methods Since Prior Valuation

The discount rate for legacy Cinergy members disabled before April 1, 2006 was changed from 2.38% to 2.49%.

Medical and dental per capita claims cost and contribution assumptions were updated, including the multipliers applied to healthy claims costs for disabled participants.

The duration of benefits for surviving spouses and eligible children was shortened to better reflect future expectations.

Data Sources

Duke Energy furnished data on current participants and paid claims, as well as the accrued postemployment benefit cost as of December 31, 2016. Data were reviewed for consistency, but no audit was performed. Willis Towers Watson is not aware of any errors or omissions that would have a significant effect on the results of our calculations.

A.2: Legacy Progress Energy Non-Union LTD Health and Life Benefits

Economic Assumptions

Discount rate:

- Participants who became disabled prior to 7/1/2012 — 2.49%
- Others — 0.00%

Long-Term Disability Assumptions

Rates of Disability Termination (recovery or death)	1987 Group Long-Term Disability Valuation Table (GLTD) for 6 month elimination periods
Disability Mortality	RP-2014 Disabled Mortality Table projected generationally with Scale BB-2D
Healthy Mortality	RPH-2014 Healthy Mortality Tables for Annuitants with no collar adjustment projected generationally with Scale BB-2D, increased by 10%
Social Security Medicare Eligibility	95% of disabled participants are assumed to be eligible for Medicare after 29 months of disability

Health Care Benefit Assumptions

Average per capita medical claim cost for 2017 (medical, including prescription drugs):

- Healthy Active Employees:
  – Average annual claims cost at age 65

	Annual claim cost
Employee	$8,003
Dependent spouse	8,003
Dependent child(ren)	4,882
Dependent family	12,885

The benefits period for children is assumed to be 10 years.

Health Care Benefit Assumptions (continued)

- Disabled:

  – Not Medicare Eligible: Claim cost for disabled participants is based on a multiplier of the healthy employee's cost based on duration from initial disability as shown below:

Years of Disability	**Multiplier**
Up to 1	11.7
1-2	8.4
2-3	4.1
3-4	3.5
4-5	3.2
5-6	2.9
>6	2.9

  – Medicare Eligible: 31% of the pre-Medicare claim cost

Medicare Part D Reimbursement: $950 annually

Average participant contributions for medical coverage for 2017 (medical, including prescription drugs): Medical contributions for each participant are supplied in the data by Duke Energy

Health Care Benefit Assumptions (continued)

Average per capita dental claim cost for 2017:

	Annual claim cost
Employee	$ 462
Employee plus spouse	924
Family	1,602

Average participant contributions for dental coverage for 2017:

	Annual contribution
Employee	$132
Employee plus spouse	312
Family	588

Average per capita vision claim cost for 2017:

	Annual claim cost
Employee	$ 70
Employee plus spouse	140
Family	222

Average participant contributions for vision coverage for 2017:

	Annual contribution
Employee	$70
Employee plus spouse	140
Family	222

Health Care Benefit Assumptions (continued)

Health care cost trend rate:	
► Medical (including prescription drugs)	7.00% (for 2017) grading to 4.75% in 2023
► Medicare Part D subsidy	2.50%
► Dental	4.00%
► Vision	2.00%
Employee contribution trend rate:	Same as health care cost trend
Administrative expenses	Included in above per capita costs
Duration of benefits	Benefit is payable until employee’s assumed retirement age of 65. 50% of surviving spouses are expected to remarry immediately.
Provision for disabilities incurred but not reported	Liabilities for reported claims were increased 16% to account for disabilities incurred but not reported as of the valuation date

Methods

Census Date	December 31, 2016
Measurement Date	December 31, 2016
Accumulated Postemployment Benefit Obligation (APBO)	Actuarial present value of benefits to current recipients.
Estimated APBO for each Additional Long-Term Disabled Participant	The APBO for any additional long-term disabled participant was estimated as the average APBO for all participants who became new disabled participants in the plan over the past 3 years.
Development of Health Care Costs	Per capita claims costs for disabled participants are derived from active per capita claims costs, increased to reflect the experience and higher morbidity of disabled participants. These claim costs are further graded on duration from initial disability to reflect the decreasing nature of disabled morbidity over time.

Benefits Not Valued

All benefits described in the Plan Provisions section were valued.

Changes in Assumptions and Methods Since Prior Valuation

The discount rate for members disabled before July 1, 2012 was changed from 2.38% to 2.49%.

Medical and dental per capita claims cost and contribution assumptions were updated, including the multipliers applied to healthy claims costs for disabled participants.

The duration of benefits for surviving spouses and eligible children was shortened to better reflect future expectations.

Data Sources

Duke Energy furnished data on current participants and paid claims, as well as the accrued postemployment benefit cost as of December 31, 2016. Data were reviewed for consistency, but no audit was performed. Willis Towers Watson is not aware of any errors or omissions that would have a significant effect on the results of our calculations.

A.3: Legacy Progress Energy Florida Power Union LTD Income Benefits

Economic Assumptions

Discount rate:

- Participants who became disabled prior to 7/1/2012 — 2.49%
- Others — 0.00%

Long-Term Disability Assumptions

Rates of Disability Termination (recovery or death)	1987 Group Long-Term Disability Valuation Table (GLTD) for 6 month elimination periods.

The following table shows the number of male disableds whose benefits terminate during the year of disability (out of 1,000 disableds at date benefits commence).

	Year of Disability			
Age at Disability	**1**	**4**	**7**	**10**
25-29	371	84	40	23
35-39	289	57	38	28
45-49	228	43	35	33
55-59	155	46	39	44

Healthy Mortality	RPH-2014 Healthy Mortality Tables for Annuitants with no collar adjustment projected generationally with Scale BB-2D, increased by 10%

Health Care Benefit Assumptions

Administrative expenses	5% of term costs
Provision for disabilities incurred but not reported	The incurred but not reported liability is the present value of all expected future disability payments for participants in the elimination period as provided by Duke Energy

Methods

Census Date	December 31, 2016
Measurement Date	December 31, 2016
Accumulated Postemployment Benefit Obligation (APBO)	Actuarial present value of benefits to current recipients
Estimated APBO for each Additional Long-Term Disabled Participant	The APBO for any additional long-term disabled participant was estimated as the average APBO for all participants who became new disabled participants in the plan over the past 3 years.

Benefits Not Valued

All benefits described in the Plan Provisions section were valued.

Changes in Assumptions and Methods Since Prior Valuation

The discount rate for members disabled before July 1, 2012 was changed from 2.38% to 2.49%.

Data Sources

Duke Energy furnished data on current participants, as well as the accrued postemployment benefit cost as of December 31, 2016. Information about the fair value of plan assets was based on the Wells Fargo trust reports furnished to us by Duke Energy. Data were reviewed for consistency, but no audit was performed. Willis Towers Watson is not aware of any errors or omissions that would have a significant effect on the results of our calculations.

Appendix B

Summary of Principal Plan Provisions

B.1 Legacy Duke Energy Postemployment Welfare Benefit Plans

Health Care (Medical and Dental) Continuation	
Eligibility	All Duke Energy and Cinergy employees (after 6 month elimination period) Former Duke Energy employees disabled prior to 1999 for medical or prior to 1997 for life insurance are accounted for under the Retiree Welfare Plan.
Coordination	The plan coordinates with Medicare on a carve-out basis.
Contributions	Same as active employees
Benefits	Disabled employees: Continued coverage under active employee health care plan until recovery from disability, death, retirement, or age 65, whichever occurs earliest. Survivors: Continued coverage under active employee health care plan until age 65 or until remarriage for spouses, and to age 26 for eligible children. Benefits for disabled employees are coordinated with Medicare if eligible.

Life Insurance Benefits	
Eligibility	Same as for health care continuation (as described above)
Contributions	None
Benefits	Continuation of active life insurance coverage until recovery of disability, death, retirement, or age 65, whichever occurs earliest.

Long-Term Disability Income Benefits

Eligibility	None
Contributions	None
Benefits Duration	N/A

Changes in Benefits Valued

We are not aware of any changes in benefits valued since the prior valuation.

B.2 Legacy Progress Energy Non-Union LTD Health and Life Benefits

Health Care (Medical and Dental) Continuation	
Eligibility	All Progress Energy Non-Union employees (after 6 month elimination period)
Coordination	The plan coordinates with Medicare on a carve-out basis.
Contributions	Same as active employees
Benefits	Disabled employees: Continued coverage under active employee health care plan until recovery from disability, death, retirement, or age 65, whichever occurs earliest. Survivors: Continued coverage under active employee health care plan until age 65 or until remarriage for spouses, and to age 26 for eligible children. Benefits for disabled employees are coordinated with Medicare if eligible.

Life Insurance Benefits	
Eligibility	Same as for health care continuation (as described above)
Contributions	None
Benefits	Basic life insurance coverage is equal to annual base salary up to a $50,000 maximum. Supplemental life insurance is available at no cost to participants if disabled prior to age 60. If they are disabled at age 60 or older, they can continue the supplemental coverage by paying active employee rates for the coverage.

Changes in Benefits Valued

We are not aware of any changes in benefits valued since the prior valuation.

B.3: Legacy Progress Florida Power Union LTD Income Benefits

Long-Term Disability Income Benefits	
Eligibility	Bargaining regular full-time employees who are participating in the Florida Power Corporation's FlexPower Plan and have elected Long-Term Disability coverage under Option 2 (60% of final pay) or Option 3 (70% of final pay) are eligible for benefits under this Plan. Before January 1, 2002, Non-Bargaining regular full-time employees also actively participated in the Plan. The only Non-Bargaining participants in the Plan now are disableds prior to January 1, 2002.
Contributions	Employee contributions are deposited in a trust fund (VEBA), separate from corporate assets. These contributions are used to pay the entire cost of providing Plan benefits. Employee contributions are waived upon disablement.
Benefits	Long-Term Disability Plan Options 2 and 3 provide for 60% and 70% of final pay replacement, respectively, at the time of disability. Both options are offset by disability benefits paid from other sources, including Social Security, Retirement Plan for Exempt and Nonexempt Employees of Florida Progress Corporation, Retirement Plan for Bargaining Unit Employees of Florida Progress Corporation, workers' compensation, and pension-type disability benefits payable under state or federal law. Benefits begin when a participant is deemed "Totally Disabled" and are paid for the life of the disabled participant.

Changes in Benefits Valued

We are not aware of any changes in benefits valued since the prior valuation.

Appendix C

C.1 Legacy Duke Energy Accounting Information by Payroll Company

ASC 712 Accounting Information as of 12/31/2016*

	Duke Energy Carolinas 100	Duke Energy Business Services 110	Duke Energy Commercial Enterprises, Inc. 501	Duke Energy Ohio 503	Duke Energy Indiana 529	Duke Energy Kentucky 536
Accumulated Postemployment Benefit Obligation (APBO)	$(25,378,488)	$(11,211,536)	$(934,675)	$(1,491,276)	$(5,381,947)	$(852,933)
Plan Assets	0	0	0	0	0	0
Funded Status	$(25,378,488)	$(11,211,536)	$(934,675)	$(1,491,276)	$(5,381,947)	$(852,933)
Amount Recognized in Statement of Financial Position	$(21,652,513)	$(8,004,669)	$(485,960)	$(1,709,144)	$(4,857,256)	$(513,527)
(Gains)/Losses Recognized	$3,725,975	$3,206,867	$448,715	$(217,868)	$524,691	$339,406
Additional information						
Expected benefit payments*	$6,358,042	$2,241,520	$237,773	$244,891	$1,185,723	$177,083

*Reflecting Medicare RDS reimbursements

C.1 Legacy Duke Energy Accounting Information by Payroll Company (continued)

ASC 712 Accounting Information as of 12/31/2016

	Duke Energy International 600	Duke Energy Disc. Oper. DSC	Duke Energy Progress 801	Duke Energy Florida 802	Total
Accumulated Postemployment Benefit Obligation (APBO)	$(0)	$(132,150)	$(1,602,896)	$(373,511)	**$(47,359,412)**
Plan Assets	0	0	0	0	**0**
Funded Status	$(0)	$(132,150)	$(1,602,896)	$(373,511)	**$(47,359,412)**
Amount Recognized in Statement of Financial Position	$(2)	$(225,959)	$(474,132)	$0	**$(37,923,162)**
(Gains)/Losses Recognized	$(2)	$(93,809)	$1,128,764	$373,511	**$9,436,250**
Additional information					
Expected benefit payments*	$0	$23,467	$258,712	$154,193	**$10,881,404**

*Reflecting Medicare RDS reimbursements

C.2 Legacy Progress Energy Accounting Information by Payroll Company

ASC 712 Accounting Information as of 12/31/2016

Non-Union LTD Health and Life Benefits	Duke Energy Business Services	Duke Energy Progress	Duke Energy Florida	Total
Accumulated Postemployment Benefit Obligation (APBO)	$(3,058,876)	$(14,462,407)	$(1,646,299)	$(19,167,582)
Plan Assets	0	0	0	0
Funded Status	$(3,058,876)	$(14,462,407)	$(1,646,299)	$(19,167,582)
Amount Recognized in Statement of Financial Position	$(1,562,554)	$(10,801,664)	$(1,456,201)	$(13,820,419)
(Gains)/Losses Recognized	$1,496,322	$3,660,743	$190,098	$5,347,163
Additional Information				
Expected Benefit Payments*	$707,658	$2,412,226	$251,884	$3,371,768

Florida Power Union LTD Income Benefits	Duke Energy Business Services	Duke Energy Progress	Duke Energy Florida	Total
Accumulated Postemployment Benefit Obligation (APBO)	$(0)	$(0)	$(7,929,062)	$(7,929,062)
Fair Value of Assets	0	0	1,029,132	1,029,132
Funded Status	$(0)	$(0)	$(6,899,930)	$(6,899,930)
Amount Recognized in Statement of Financial Position	$0	$(0)	$(6,306,316)	$(6,306,316)
(Gains)/Losses Recognized	$0	$(0)	$593,614	$593,614
Additional Information				
Expected Benefit Payments*	$0	$0	$713,496	$713,496

*Reflecting Medicare RDS reimbursements

C.3 Legacy Duke Energy Participant Data by Payroll Company

As of December 31, 2016	Duke Energy Carolinas 100	Duke Energy Business Services 110	Duke Energy Commercial Enterprises, Inc. 501	Duke Energy Ohio 503	Duke Energy Indiana 529	Duke Energy Kentucky 536
Number of disabled employees receiving:						
• Medical and/or dental benefits	230	98	8	12	35	6
– Adult dependents	133	52	1	8	25	4
– Children dependents	47	20	0	0	9	0
• Life insurance	250	112	9	16	38	7
Number of surviving spouses receiving:						
• Medical and/or dental benefits	92	38	0	13	25	2
– Children dependents	35	11	0	4	11	0

C.3 Legacy Duke Energy Participant Data by Payroll Company (continued)

As of December 31, 2016	Duke Energy International 600	Duke Energy Disc. Oper. DSC	Duke Energy Progress 801	Duke Energy Florida 802	Total
Number of disabled employees receiving:					
• Medical and/or dental benefits	0	0	4	2	**395**
– Adult dependents	0	0	2	1	**226**
– Children dependents	0	0	1	1	**78**
• Life insurance	0	0	9	2	**443**
Number of surviving spouses receiving:					
• Medical and/or dental benefits	0	7	2	0	**179**
– Children dependents	0	2	2	0	**65**

C.4 Legacy Progress Energy Participant Data by Payroll Company

As of December 31, 2016	Duke Energy Business Services	Duke Energy Progress	Duke Energy Florida	Total
Number of disabled employees receiving:				
• Non-Union LTD Health and Life Benefits	26	137	20	**183**
• Union LTD Income Benefits	0	0	98	**98**

Willis Towers Watson

Duke Energy Corporation

Supporting Document for Key Assumptions

September 2017

Supporting Documentation for Key Assumptions

This report documents the actuarial assumptions selected by Duke Energy Corporation for the measurement of the 2016 year-end financial statement obligations and fiscal 2017 net periodic postretirement benefit cost in accordance with FASB ASC 712 and the methodology and rationale used by Willis Towers Watson to support our concurrence with those assumptions. The actuarial assumptions considered herein apply to the Legacy Duke Energy and Legacy Progress Energy Postemployment Welfare Benefit Plans.

The key actuarial assumptions reviewed herein include:

Economic (reviewed annually)

- Discount rate
- Health care cost trend rates
- Per capita claims costs

Non-Economic (typically reviewed for experience every 3-5 years)

- Mortality assumption
- Disability termination (recovery) assumption
- Other demographic assumptions, including disability rates

Discount Rate

U.S. accounting rules (ASC 712) specify that discount rates used to measure benefit obligations for financial reporting purposes reflect rates at which benefits could be effectively settled. The plan sponsor may also look to rates of return on risk-free fixed income investments currently available and expected to be available during the period to maturity of the benefits. Where fixed income maturities do not extend far enough into the future to meet expected benefit payments, the assumed discount rates are extrapolated from the existing yield curve at the measurement date.

Based on this guidance, Duke Energy Corporation has engaged Willis Towers Watson to prepare a cash flow matching analysis to support its discount rate selection, using a risk-free yield curve discounting approach. The spot rates as of 12/31/2016 are developed by Willis Towers Watson based on information from US Treasury bonds.

The methodology employed is summarized as follows:

- Treasury bond data is gathered from Bloomberg for all coupon bonds that are not inflation-linked.
- The bond universe is then categorized into groups based on adjusted maturities. Yields are determined to reflect the mid-point of quoted bid and asked prices.
- The weighted-average yield and maturity are then developed for each maturity group.
- A yield curve is generated that best fits these targets.
- The yield curve is converted to spot rates for discounting purposes. The spot rate curve is assumed to remain level for maturities beyond 30 years.

Each year's projected benefit cash flow was discounted to 12/31/2016 at the spot rate specified for that year. The discount rate benchmark is the single rate that, if applied to all years' cash flows, would result in the same discounted value as the spot rates applied to those same cash flows. The discount rate benchmark as of 12/31/2016 is 2.49%. This discount rate is only applied to participants who became disabled prior to purchase accounting (4/1/2006 for Legacy Cinergy employees, 7/1/2012 for Legacy Progress employees). No discounting is applied to other employees.

Summary of Preliminary Year-End Discount Rates

	Actual December 31, 2015 Discount Rate	Actual December 31, 2016 Discount Rate
Legacy Duke Energy	2.38%	2.49%
Legacy Progress Energy	2.38%	2.49%

While Duke Energy Corporation is responsible for the selection of the discount rate, we believe the calculations and analysis described in the report are consistent with FASB Accounting Standards Codification 712-10 and support Duke Energy Corporation's discount rate selection process for the year-end measurement of the benefit obligations as of December 31, 2016.

Health Care Cost Trend Rates

Willis Towers Watson annually surveys employers for prospective employer health care trends. In addition, we review the information provided by other national health care trend surveys and input from UnitedHealthcare (UHC) actuaries' expectations of future trends. Based on this information, we expect employer health care rate increases for retiree plans from 2016 to 2017 will be approximately 7.00%. We consider these assumptions appropriate, as a starting point, for both medical and prescription drug costs and thus, have one trend assumption for both medical and prescription drug costs.

For each disabled population, we adjust the health care cost trend assumption to account for their plan design components. For disabled populations, because this group is relatively small in population and thus, not credible, we believe the long-term trend health care cost trend rates of retirees is the best reflection of how health care costs for disableds will change over time. For example, the pre-65 plan designs offer higher than average deductibles. Due to leveraging, these higher deductibles drive higher plan cost trends. As a result, the health care cost trend assumption has been decreased slightly in the near term, producing a health care trend assumption of 7.00% for 2017, grading down 0.50% every year to 5.50% in 2020, then grading down 0.25% every year to 4.75% in 2023. Because these benefits are for pre-65 medical coverage only, they ignore the effect of lower trend experienced in the Medicare market.

The health care cost trend rate assumption is graded to an ultimate rate of 4.75% in 2023, in order to reflect the widely held expectation that health care trends will slowly mitigate over time and in recognition that the proportion of the GNP represented by health care must stabilize at some time. Thus, our assumption matches that of our expectation for retiree plans from 2016 to 2017. Consequently, after reviewing the initial trend rates, ultimate trend rates, and years from initial to ultimate trend, we concur that this assumption is reasonable.

Per Capita Claims Costs

Per capita claims costs for disabled lives are based on a multiplier of active health care costs. To begin the process for Pre-65 Claims Cost development, we used March 2014 through February 2016 paid claims data gathered from Truven Health Analytics database (formerly Thomson Reuters) for all Legacy groups (Duke, Cinergy and Progress). Only active claims are analyzed similar to last year.

Medical and prescription drug claims and enrollment for all plans were separated and used to develop projected 2017 percentage rate increases applicable to the 2016 PMPM rates for those plans. We trended forward the experience to 2016 and then adjusted for the small change to the prescription drug value as a result of new prescription drug deal terms. To account for the cost of administration, we added the contractually agreed upon 2017 administration fees for UHC and Caremark to the PMPMs.

As a result of our analysis, active PMPMs for 2017 were expected to increase as follows:

- Legacy Duke: From 1% to 10%, depending on the coverage tier chosen
- Legacy Progress: From 5.5% to 7%, depending on the coverage tier chosen

Mortality Assumption (Current Rates and Projection Basis)

In selecting a mortality assumption for the year-end 2016 reporting of plan obligations, Duke Energy considered base mortality rates as of the valuation year and expectations regarding future mortality improvements in those base mortality rates. Duke Energy also considered the MP-2016 projection scale recently published by the Society of Actuaries on October 20, 2016 and other recent studies of mortality improvement.

In December 2014, Duke Energy conducted a mortality experience study of its own population in light of the base mortality table rates presented in RP-2014. The plan mortality experience over the period 2010-2013 was compared to the RP-2014 table with projection of the table to the mid-point of the experience period using Scale MP-2014 and mortality was determined to be higher than indicated by the table. Based on the results of that experience study and consideration of the projection scale MP-2015, Duke Energy decided to remain using the following base mortality table rates, with adjustments indicated, by plan:

Plan	Base Mortality Table
Legacy Duke Energy Postemployment Welfare Benefit Plans	RPH-2014 (headcount weighted tables) no collar rates, increased by 15%
Legacy Progress Energy Non-Union LTD Health and Life Benefits and Florida Power Union LTD Income Benefits	RPH-2014 (headcount weighted tables) no collar rates, increased by 10%

With respect to mortality improvement scale, Duke Energy has selected a generational projection using Scale BB-2D rates, as published by the Society of Actuaries' RPEC in 2013. Duke Energy believes this scale most accurately reflects short-term mortality improvements observed to 2013 and therefore represents a better "fit" to long-term expectations. This assumption is unchanged from the prior year. .

Willis Towers Watson concurs these assumptions are reasonable and represent best estimates for the measurement of year-end 2016 obligations for these plans considering the composition of the covered groups, plan experience, recent studies of actual to assumed mortality improvement as well as geography.

Disability Termination (Recovery) Rates

Duke Energy revised the disability termination (recovery) rates during 2015 to use the 1987 Group Long-Term Disability Valuation Table (GLTD). This represents one of the most recent standard industry tables and is still utilized by a wide variety of employers. Willis Towers Watson concurs that this assumption is reasonable. This assumption will be monitored periodically to determine if it produces significant gains or losses, which could warrant a change to the assumption in the future.

Disability Rates

Duke Energy is not intending to change the disability rates. The assumed disability rates were last reviewed in 2010 based on the actual incidence of disability during 2007, 2008 and 2009. Willis Towers Watson concurs that the current assumptions are reasonable expectations of long term patterns based on past experience. This assumption will be monitored periodically to determine if the current assumption produces significant gains or losses, which could warrant a change to the assumption in the future.