



Public Power Utility Value from Outsider and Insider Perspectives

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PFM

Charlotte, NC

pfm.com



Topics

Recent Public Power Headlines

The Utility Landscape

IOU Merger Activity and Drivers

The Merger Math

The Local Impacts and Considerations



Recent Public Power Headlines



Public Power Remains in the Headlines



Selling Santee Cooper won't be easy; lawmakers look at pros and cons of possible sale



Gov. McMaster continues push to sell Santee Cooper

The Post and Courier

FOUNDED 1803 WINNER OF THE PULITZER PRIZE

Weigh value, cost of lakes in Santee Cooper sale

SEP 9, 2018



Public Power Remains in the Headlines

Miami Herald

State regulators override staff objection, approve FPL's acquisition of Vero Beach utility

TALLAHASSEE — State utility regulators Tuesday approved Florida Power & Light's acquisition of a city-run utility, overriding a staff proposal that could have scuttled the deal.

With a deal in the works for more than a decade, the Florida Public Service Commission approved FPL's purchase of the city of Vero Beach's electric system without accepting a downward "adjustment" recommended by staff that would have shaved about \$90 million off the \$185 million acquisition.

TC Palm.
PART OF THE USA TODAY NETWORK

Delay in Vero electric sale to Florida Power & Light Co. affecting city, county budget savings

Group drops protest to FPL purchase of Vero electric utility, but three protests remain



Public Power Remains in the Headlines

wjct PUBLIC MEDIA **Evaluation: City Could Net As Much As \$6.4 Billion From Potential JEA Sale**

FIRSTCOAST NEWS **JEA Debate: Pros, cons and conditions of a potential sale**

The day after JEA leadership held a workshop to discuss a possible sale, and the day before City Council's Special Committee meets again to discuss a possible sale, a meeting was called for Wednesday afternoon to debate the pros and cons of a sale.

JACKSONVILLE BUSINESS JOURNAL
Breakdown: What selling JEA would look like

The Florida Times-Union
jacksonville.com

Keep JEA and build on its success, council committee report says



Public Power Remains in the Headlines

ANCHORAGE DAILY NEWS

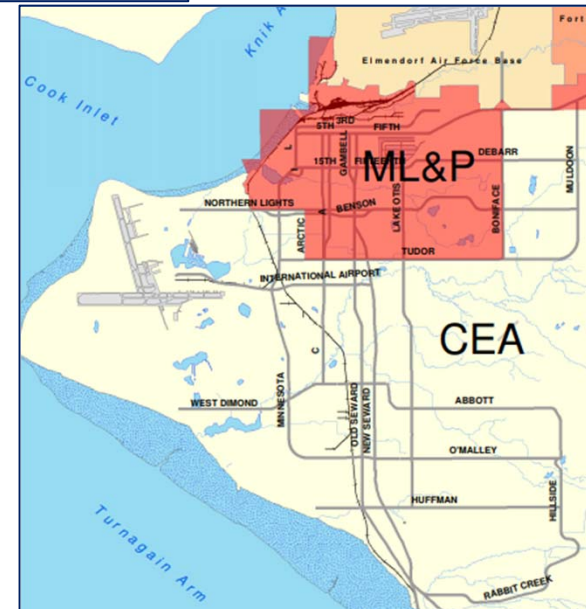
Anchorage mayor proposes to sell ML&P to Chugach Electric in \$1 billion deal

5 other companies expressed interest in buying Anchorage power company

Initial results show Anchorage voters allowing city to sell ML&P to Chugach Electric

ALASKA **Journal of Commerce**

Anchorage utilities, mayor announce \$1B consolidation deal





Public Power Remains in the Headlines

Puerto Rico to privatize its hobbled electric power company



THE BOND BUYER

Puerto Rico governor signs bill for partial privatization of PREPA

THE WALL STREET JOURNAL

Puerto Rico Power Utility Reaches Deal With Bondholders

BlueMountain Capital, Franklin Advisers and other bondholders agree to restructuring part of utility's \$9 billion debt



Is Public Power for Sale?

◆ Is this an Industry Wide Trend?

◆ Likely Not

- *Each of the examples display unique circumstances*
- *And there is no common thread that is systemic to public power*



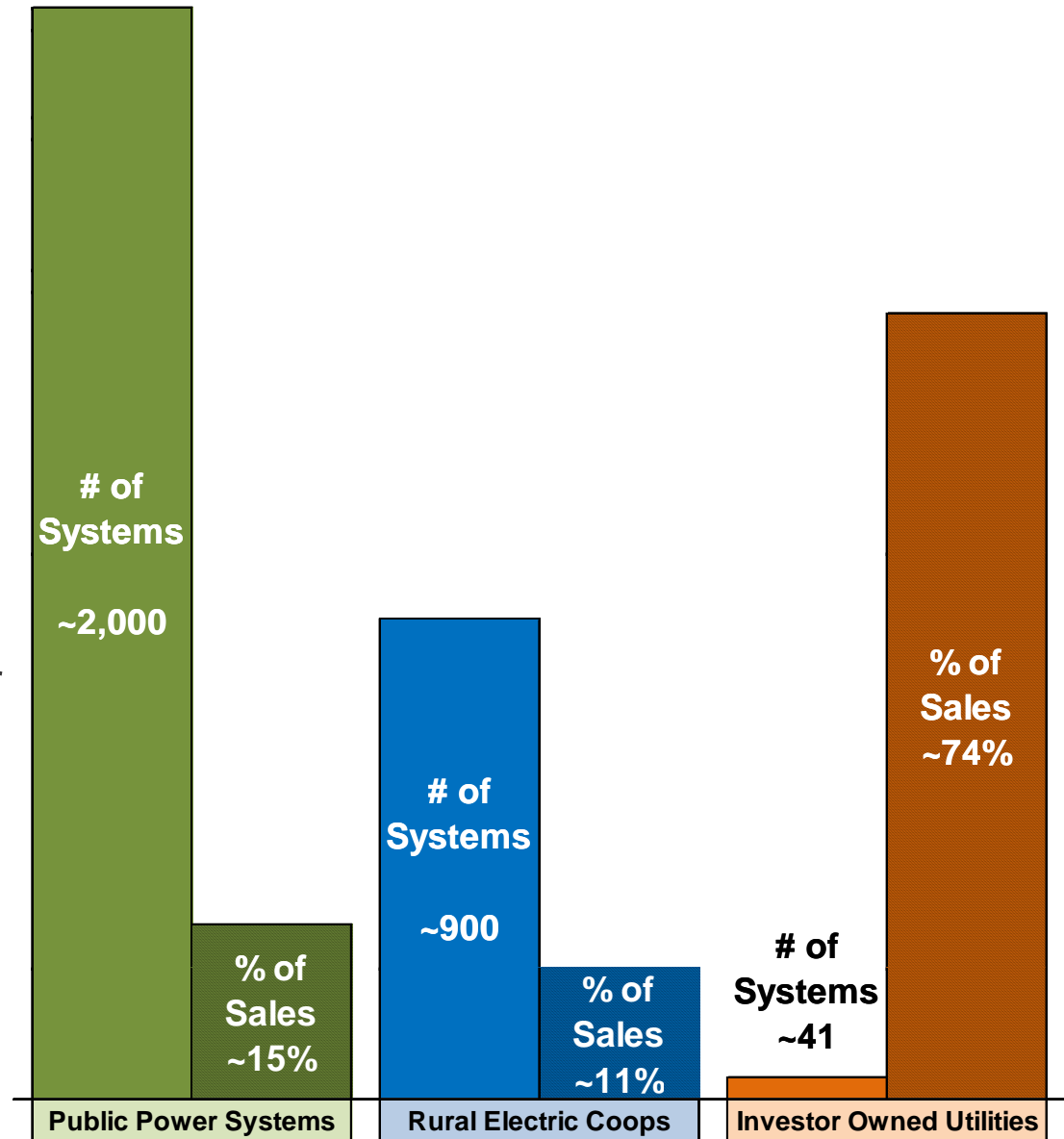


The Utility Landscape



Public Power Industry Position: # of Systems & kwh Sales

- *Very many small public power systems*
- *The number has not changed much in decades*
- *Similar landscape for Coops, who serve 56% of U.S. landmass*
- *Average IOU sells almost 250 times the energy of the average muni system*





IOUs by Market Capitalization

XI. Market Capitalization at December 31, 2017 (in \$ Mil.)

U.S. Investor-Owned Electric Utilities

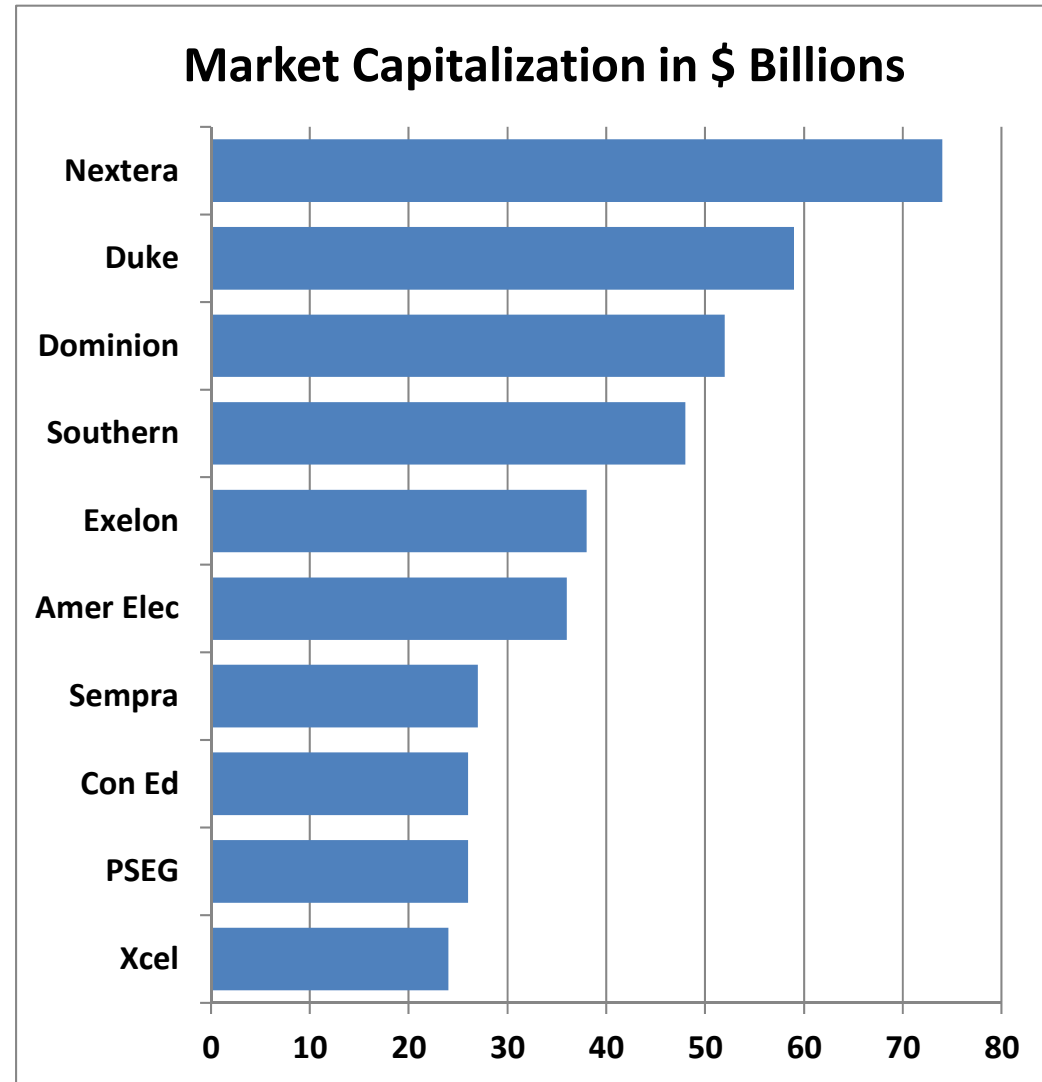
Company	Stock Symbol	\$ Market Cap	% Total	Company	Stock Symbol	\$ Market Cap	% Total
NextEra Energy, Inc.	NEE	73,316	10.18%	Alliant Energy Corporation	LNT	9,843	1.37%
Duke Energy Corporation	DUK	58,877	8.17%	Pinnacle West Capital Corp.	PNW	9,526	1.32%
Dominion Resources, Inc.	D	52,081	7.23%	NiSource Inc.	NI	8,500	1.18%
Southern Company	SO	48,234	6.70%	Westar Energy, Inc.	WR	7,523	1.04%
Exelon Corporation	EXC	37,912	5.26%	Great Plains Energy Inc.	GXP	6,951	0.96%
Amer. Elec. Power Co.	AEP	36,185	5.02%	OGE Energy Corp.	OGE	6,572	0.91%
Sempra Energy	SRE	26,940	3.74%	SCANA Corporation	SCG	5,689	0.79%
Consolidated Edison, Inc.	ED	26,148	3.63%	Vectren Corporation	VVC	5,397	0.75%
Public Svc. Enter. Group Inc.	PEG	26,008	3.61%	MDU Resources Group, Inc.	MDU	5,250	0.73%
Xcel Energy Inc.	XEL	24,468	3.40%	IDACORP, Inc.	IDA	4,601	0.64%
PG&E Corporation	PCG	22,998	3.19%	Portland General Electric Co.	POR	4,060	0.56%
PPL Corporation	PPL	21,249	2.95%	Hawaiian Electric Indus., Inc.	HE	3,933	0.55%
WEC Energy Group, Inc.	WEC	20,965	2.91%	ALLETE, Inc.	ALE	3,792	0.53%
Edison International	EIX	20,616	2.86%	Avista Corporation	AVA	3,317	0.46%
Eversource Energy	ES	20,053	2.78%	PNM Resources, Inc.	PNM	3,233	0.45%
DTE Energy Company	DTE	19,593	2.72%	Black Hills Corporation	BKH	3,200	0.44%
AVANGRID, Inc.	AGR	15,654	2.17%	NorthWestern Corporation	NWE	2,895	0.40%
Entergy Corporation	ETR	14,615	2.03%	El Paso Electric Company	EE	2,238	0.31%
Ameren Corporation	AEE	14,311	1.99%	MGE Energy, Inc.	MGEE	2,188	0.30%
FirstEnergy Corp.	FE	13,595	1.89%	Otter Tail Corporation	OTTR	1,756	0.24%
CMS Energy Corporation	CMS	13,282	1.84%	Unitil Corporation	UTL	642	0.09%
CenterPoint Energy, Inc.	CNP	12,224	1.70%	Total Industry		720,427	100.00%

Source: EEI Finance Dept., S&P Global Market Intelligence



Top 10 IOUs by Market Capitalization

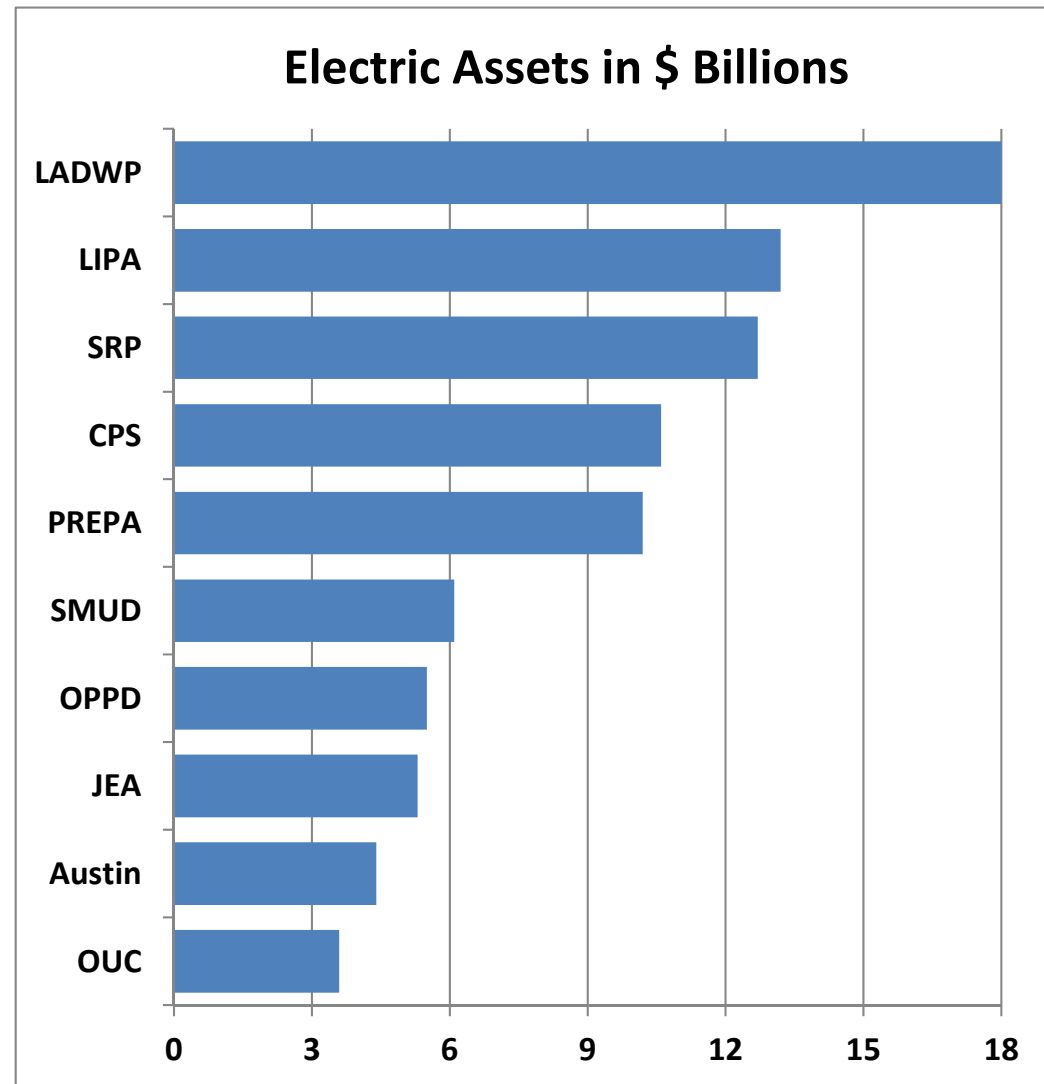
- *Top 10 IOUs have a total of ~\$380 billion of market capitalization*
- *Making up 53% of the IOU industry market cap*
- *There were almost 100 IOUs 20 years ago*
- *Now there are 41*
- *Largest (NEE) is 5X as big as the largest from 20 years ago*
- *Median IOU is 4X from 20 years ago*





Top 10 Public Power Systems by Assets

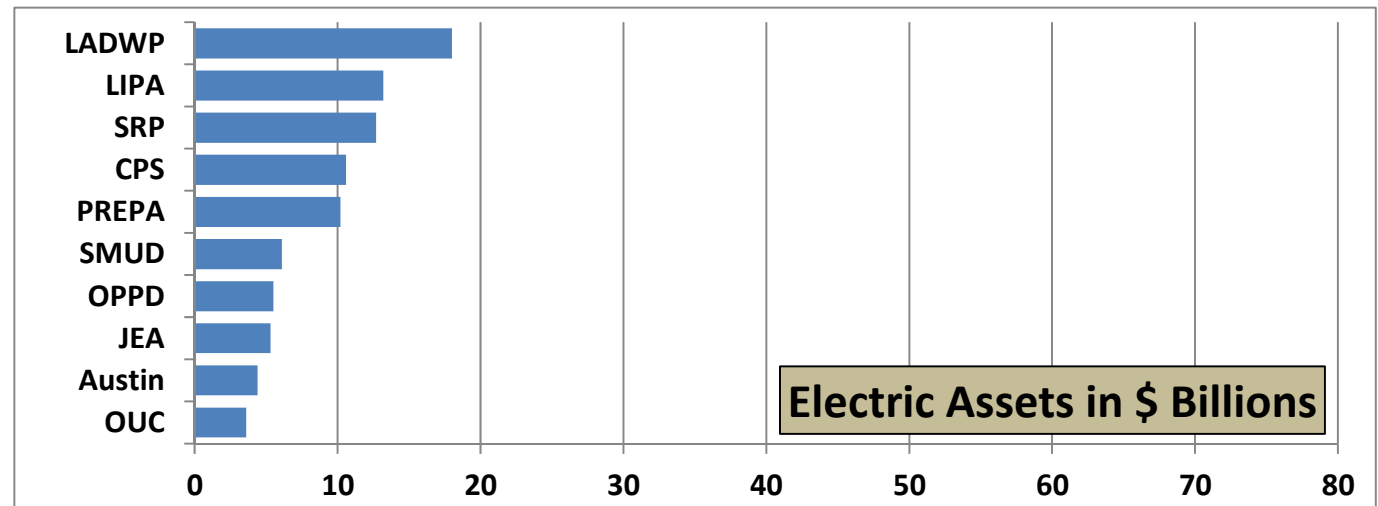
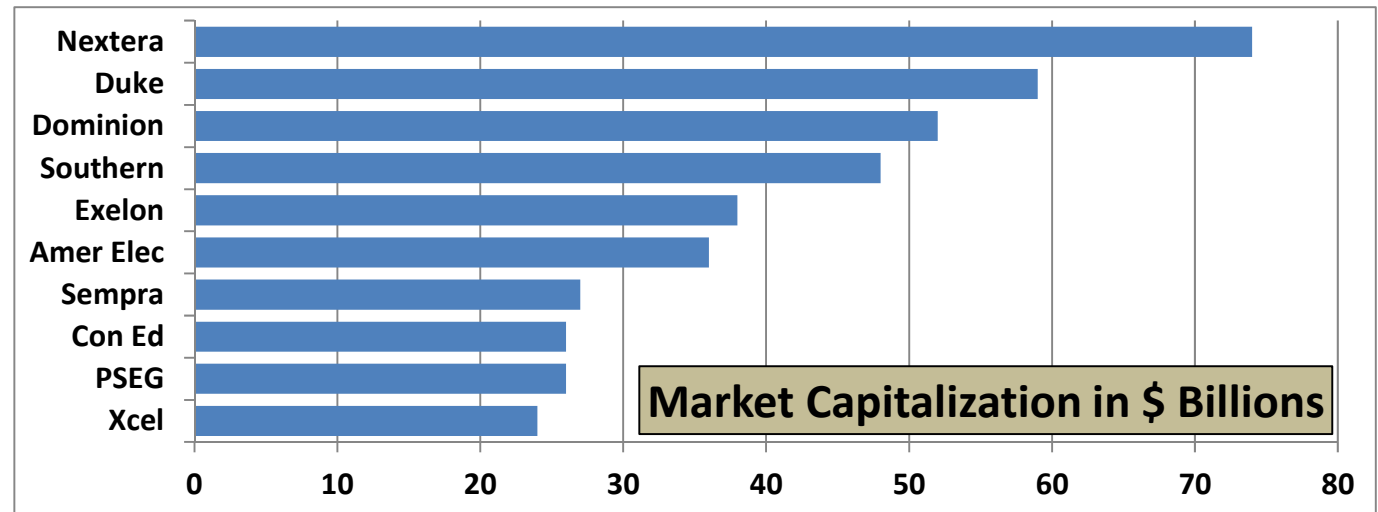
- *Top 10 Muni systems have a total of ~\$90 billion of assets*
- *Roughly same number of systems as 20 years ago*
- *Assets have grown, but not nearly as much as IOU group*





Top 10 System Comparison

- *Market Cap compared to Assets*
- *A bit of apples to oranges*





IOU Merger Activity and Drivers



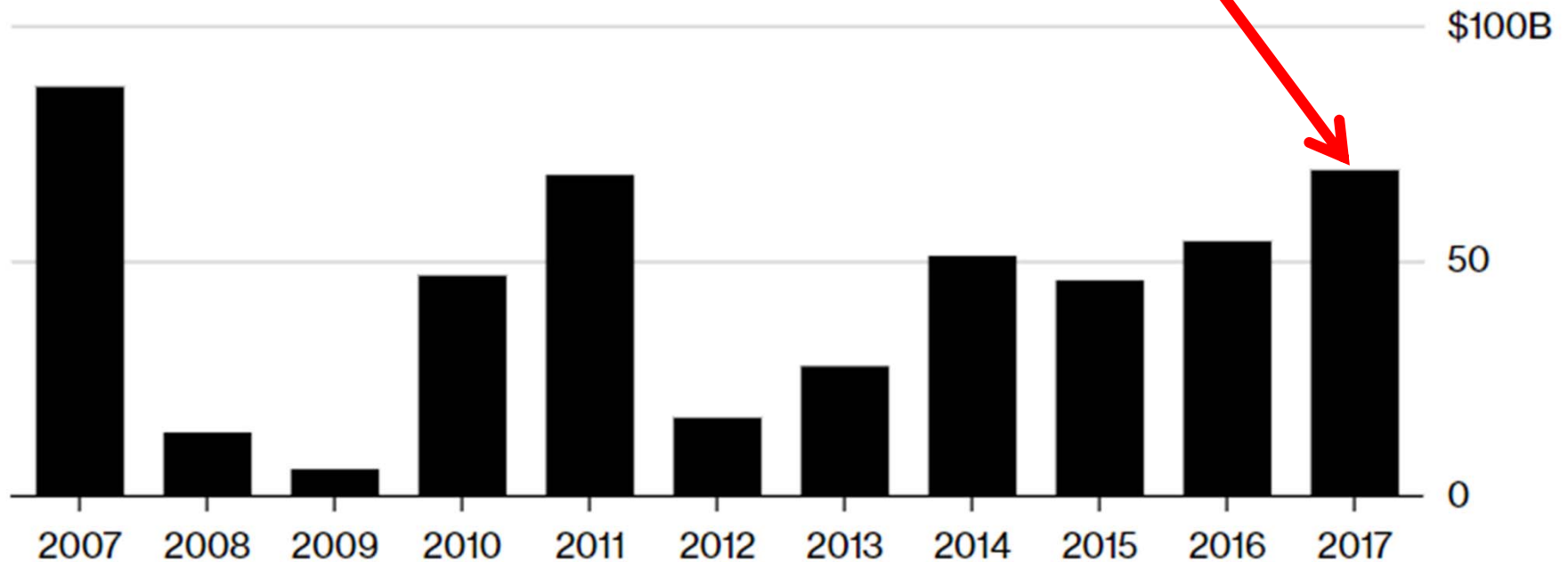
Strong Pace of IOU Consolidation

Utility Deals Surge

Buyers seeking growth amid flat energy demand

■ Total value of all deals

~\$70 Billion Utility M&A in 2017
Compared to ~\$90 Billion of Top 10 Muni Electric Assets!





Strong Pace of IOU Consolidation

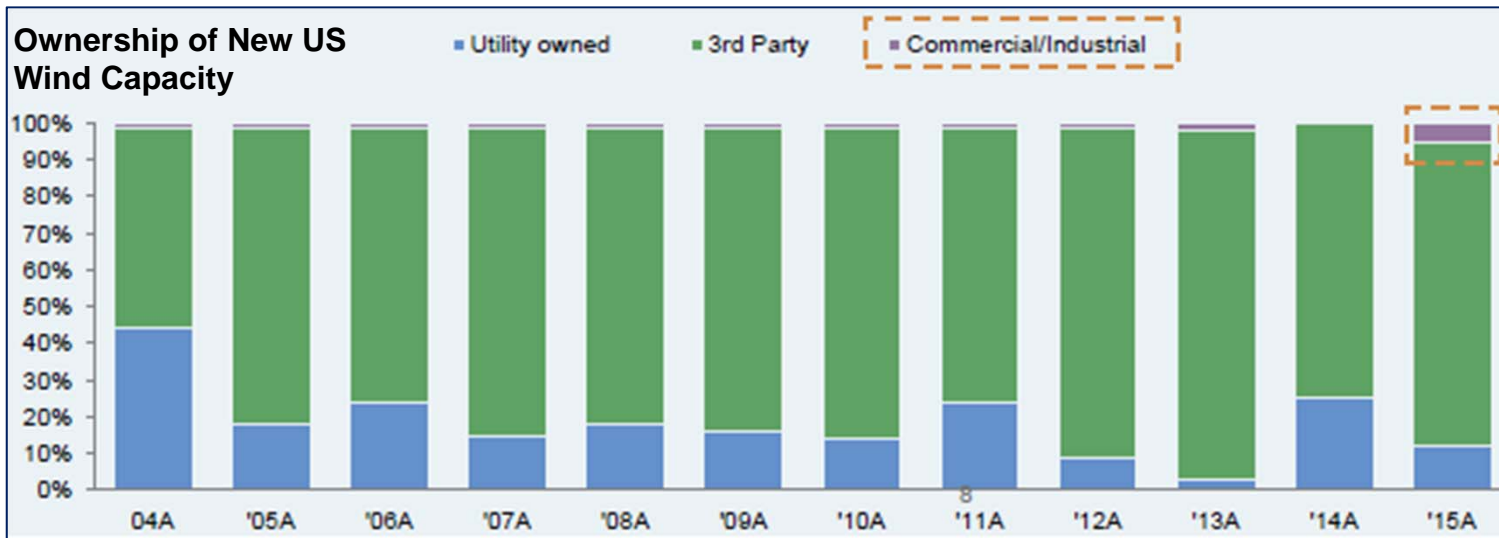
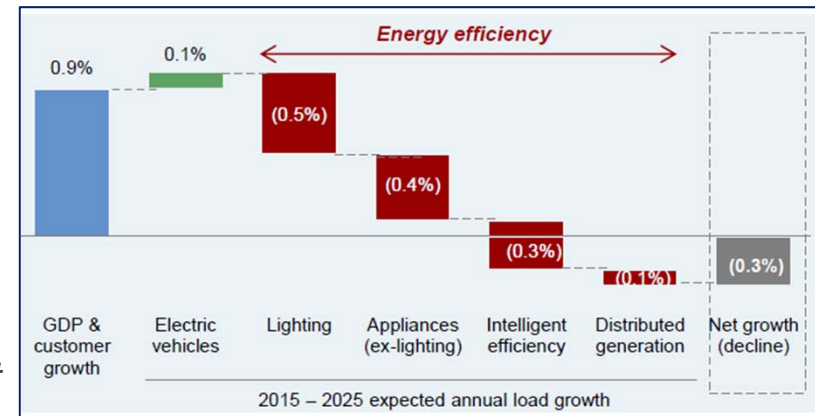
- ◆ Strong Overall M&A Market Conditions
 - *Cash on balance sheets*
 - *Low interest rates and high equity prices*
 - *Investors are supportive of M&A – vast capital access*
 - *Large base of strategic and financial buyers of all assets*
 - *Demand both internationally and domestic*
 - *Lower corporate tax rates*



Strong Pace of IOU Consolidation

Utility Market M&A Drivers

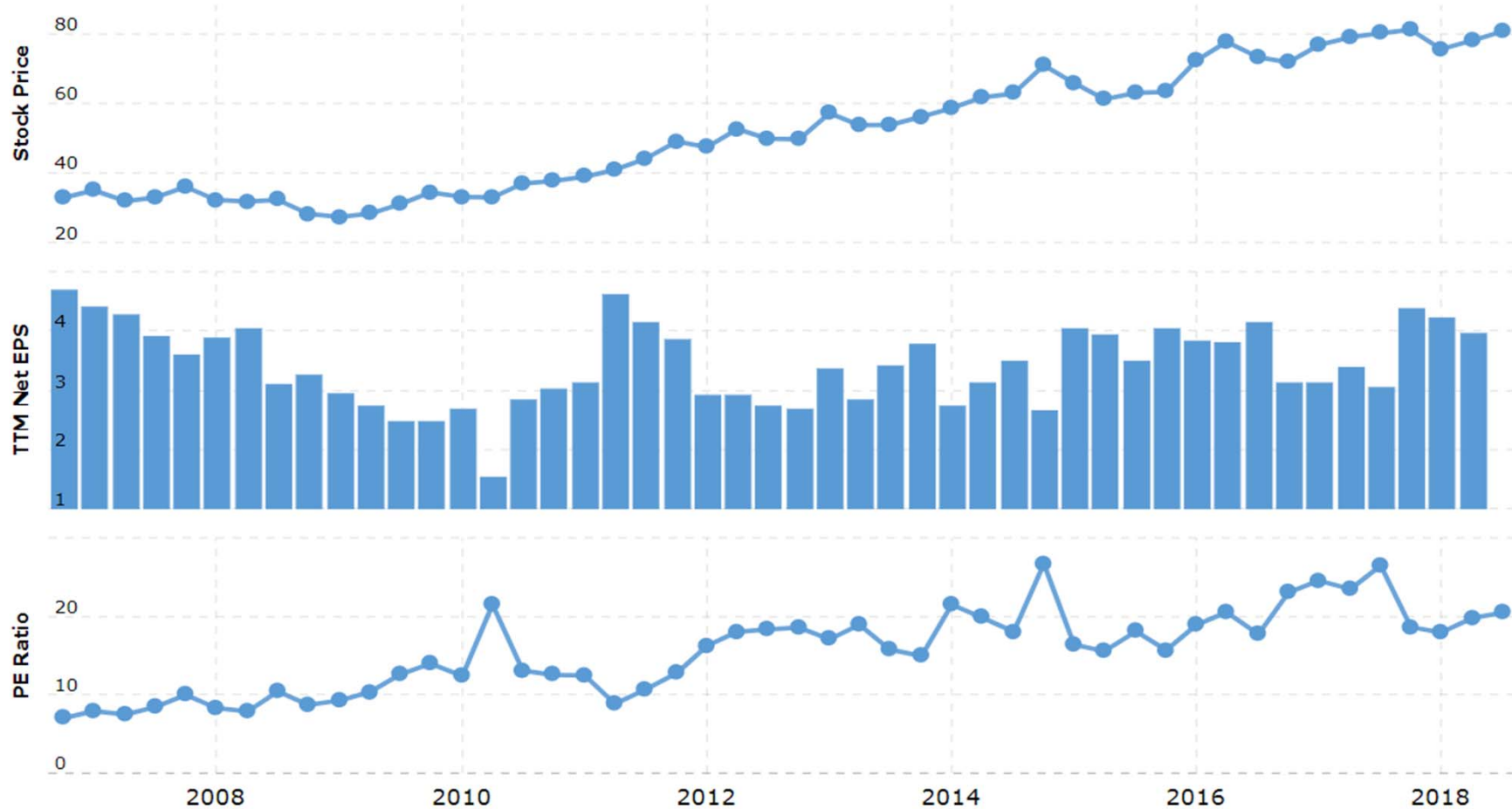
- Investors crave and reward growth
- Zero to negative organic customer growth
- Depreciation erodes rate base
- Renewable PPAs cannibalize opportunity
- Acquisitions provide growth opportunity
- Fewer targets every year – buy or be bought





Utility Stock Prices Fuel Demand

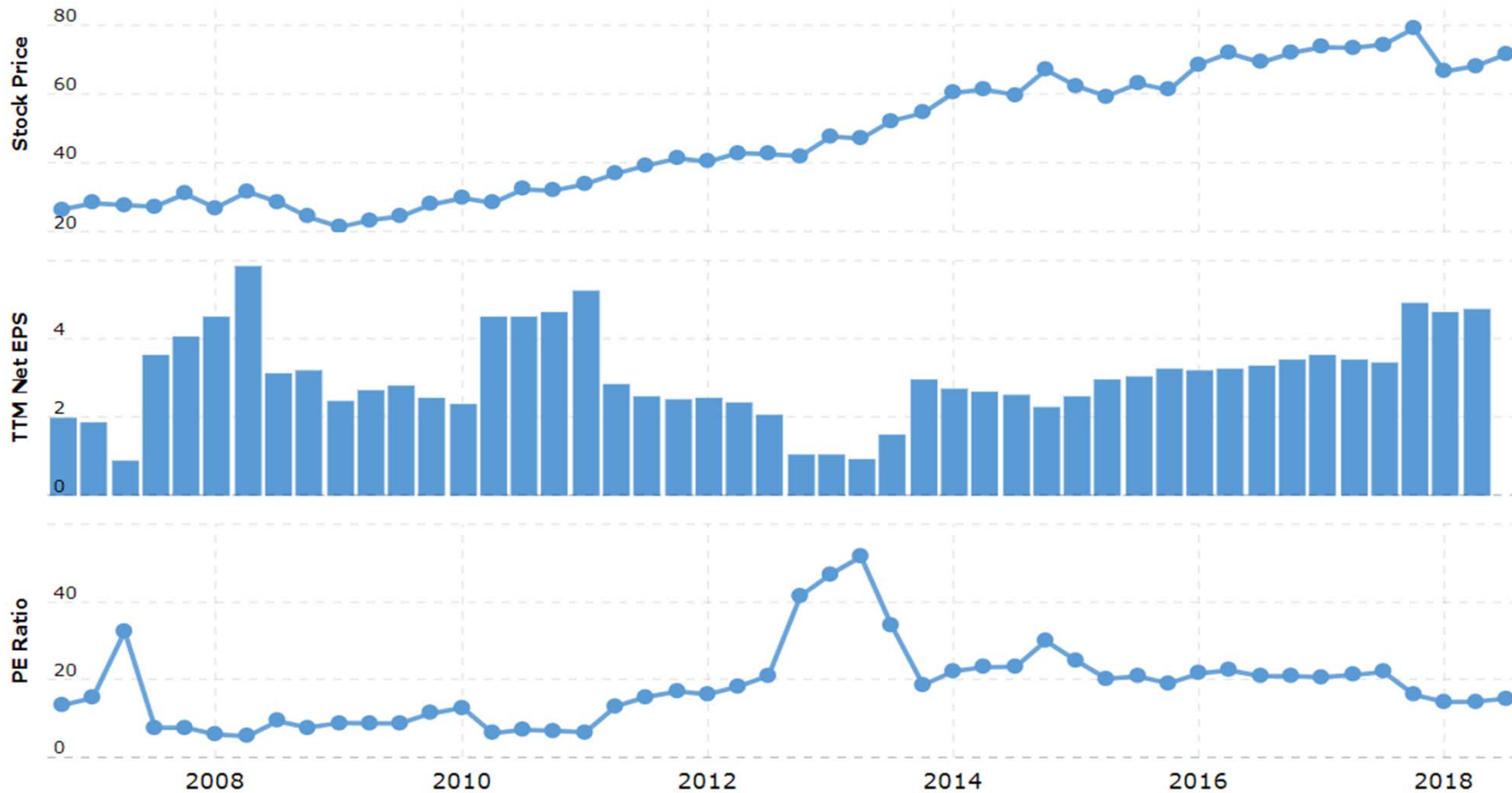
- *Duke Energy Stock Price and EPS Data*





Utility Stock Prices Fuel Demand

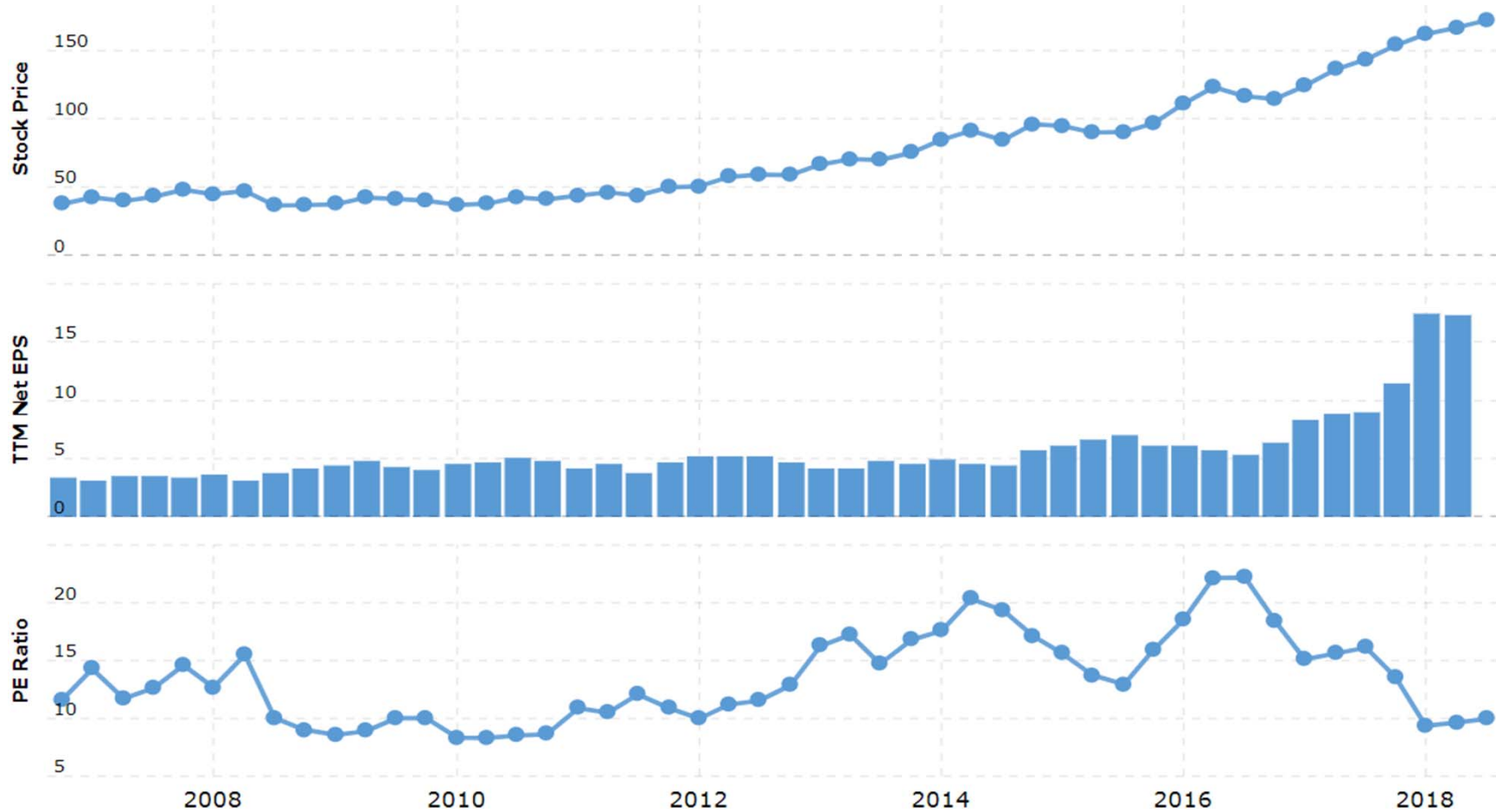
- *Dominion Energy Stock Price and EPS Data*





Utility Stock Prices Fuel Demand

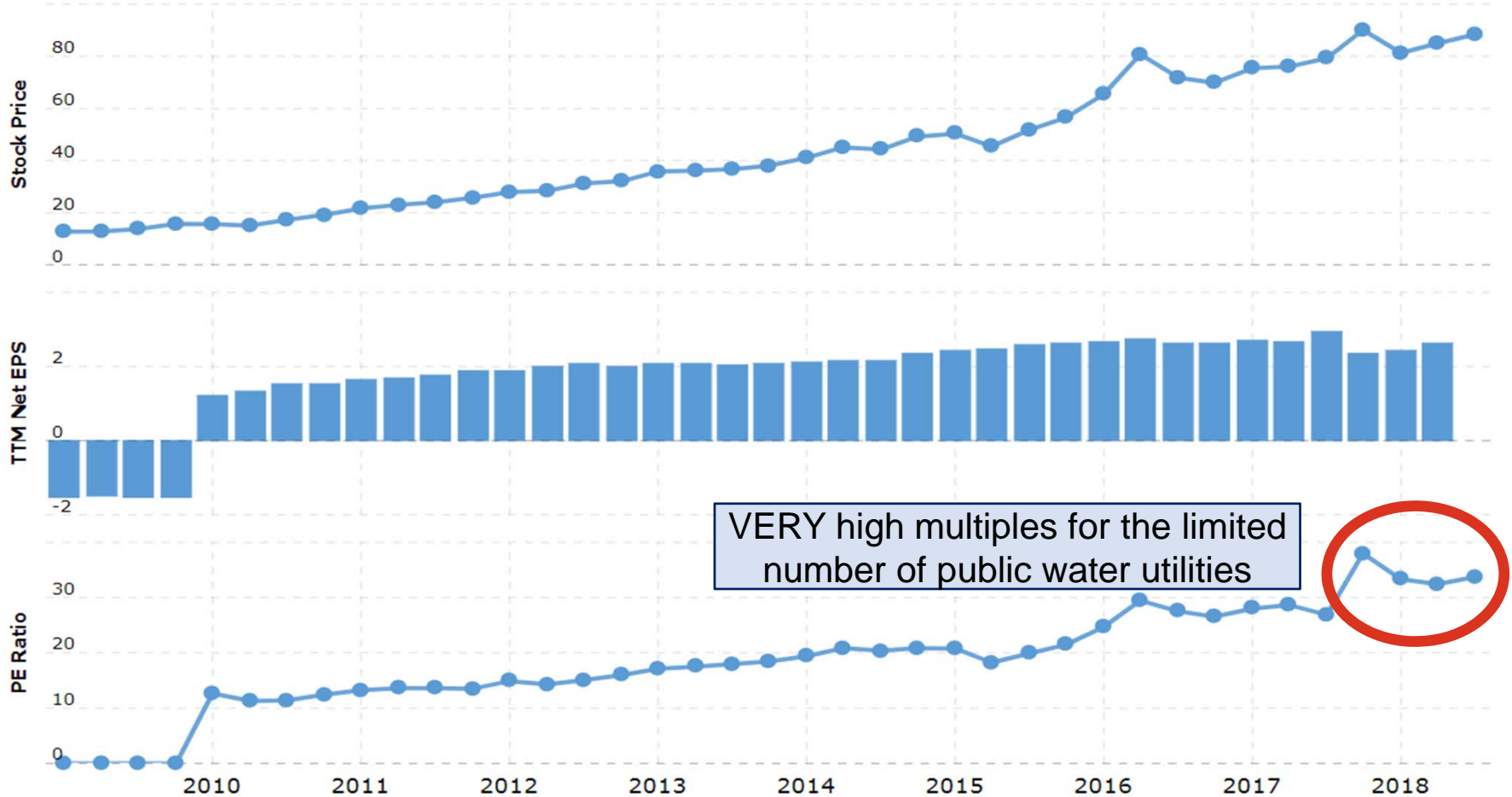
- *NextEra Energy Stock Price and EPS Data*





Utility Stock Prices Fuel Demand

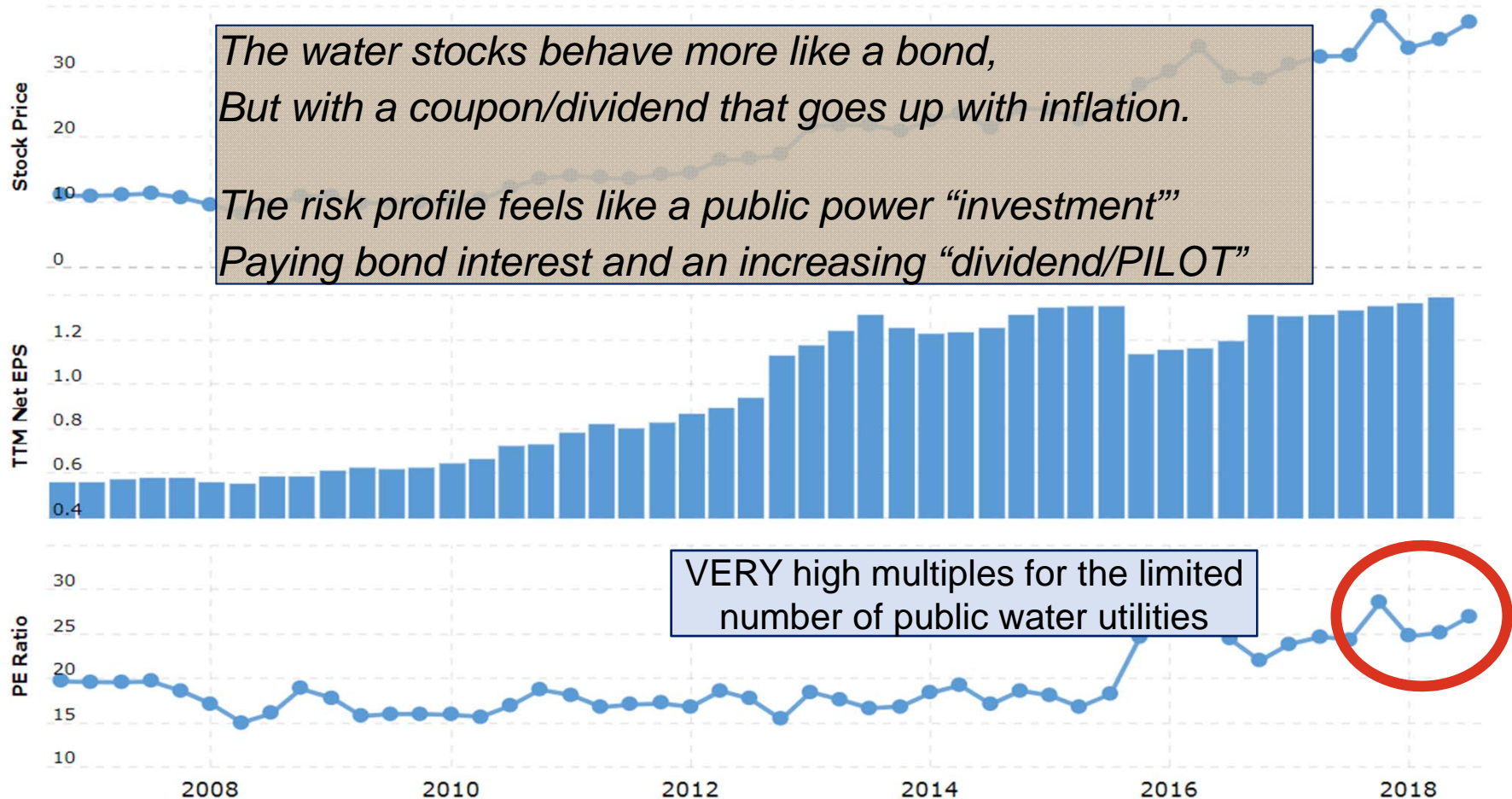
American Water Stock Price and EPS Data





Utility Stock Prices Fuel Demand

- *Aqua America Stock Price and EPS Data*





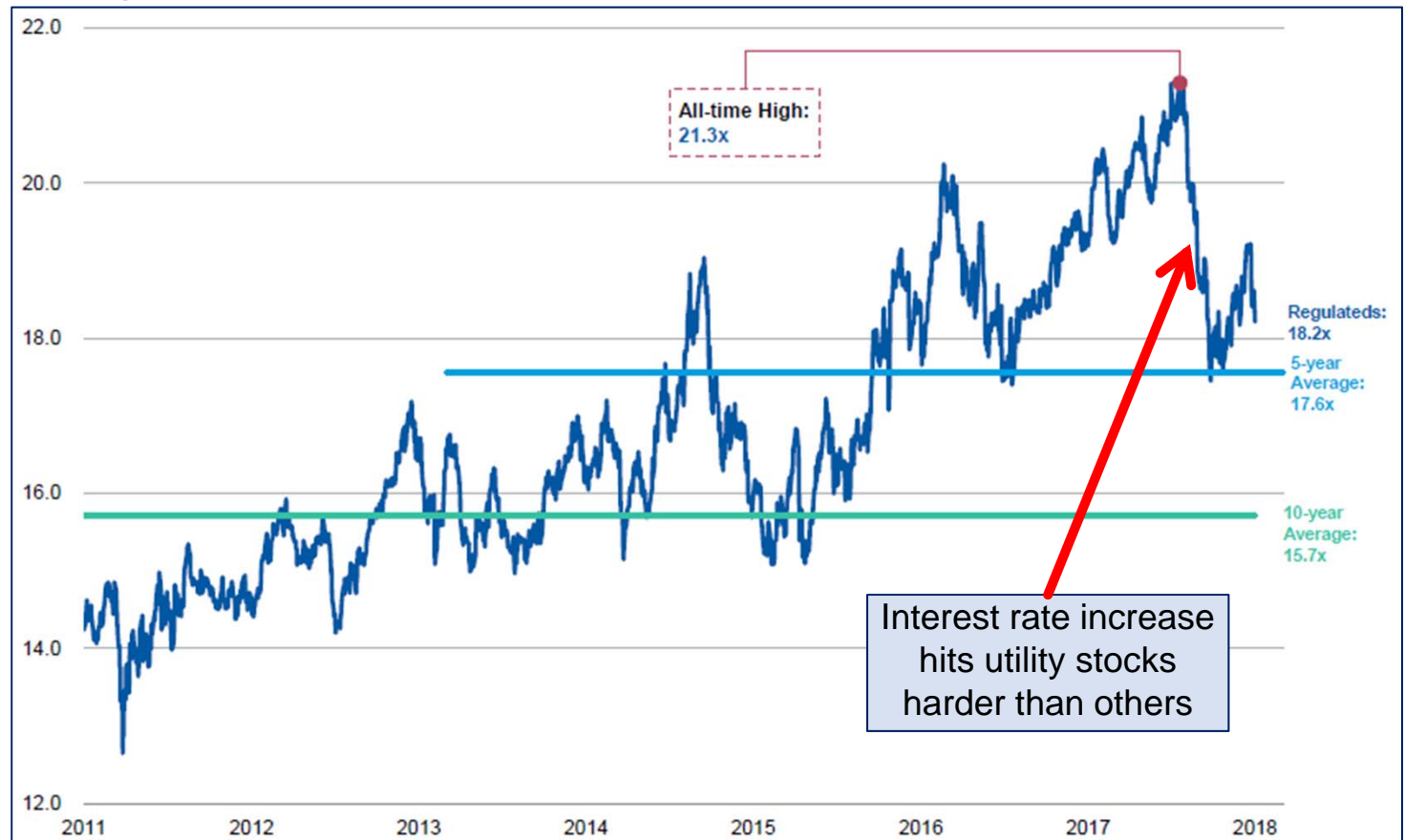
Utility Industry Valuation Drivers

◆ Financial Markets Make a Case for Rate Base Growth

Regulated Returns on Equity Exceed Market Cost of Equity

Regulated Utility
P/E Multiples

NTM P/E #s
over 20X imply a
5%-ish market
cost of equity

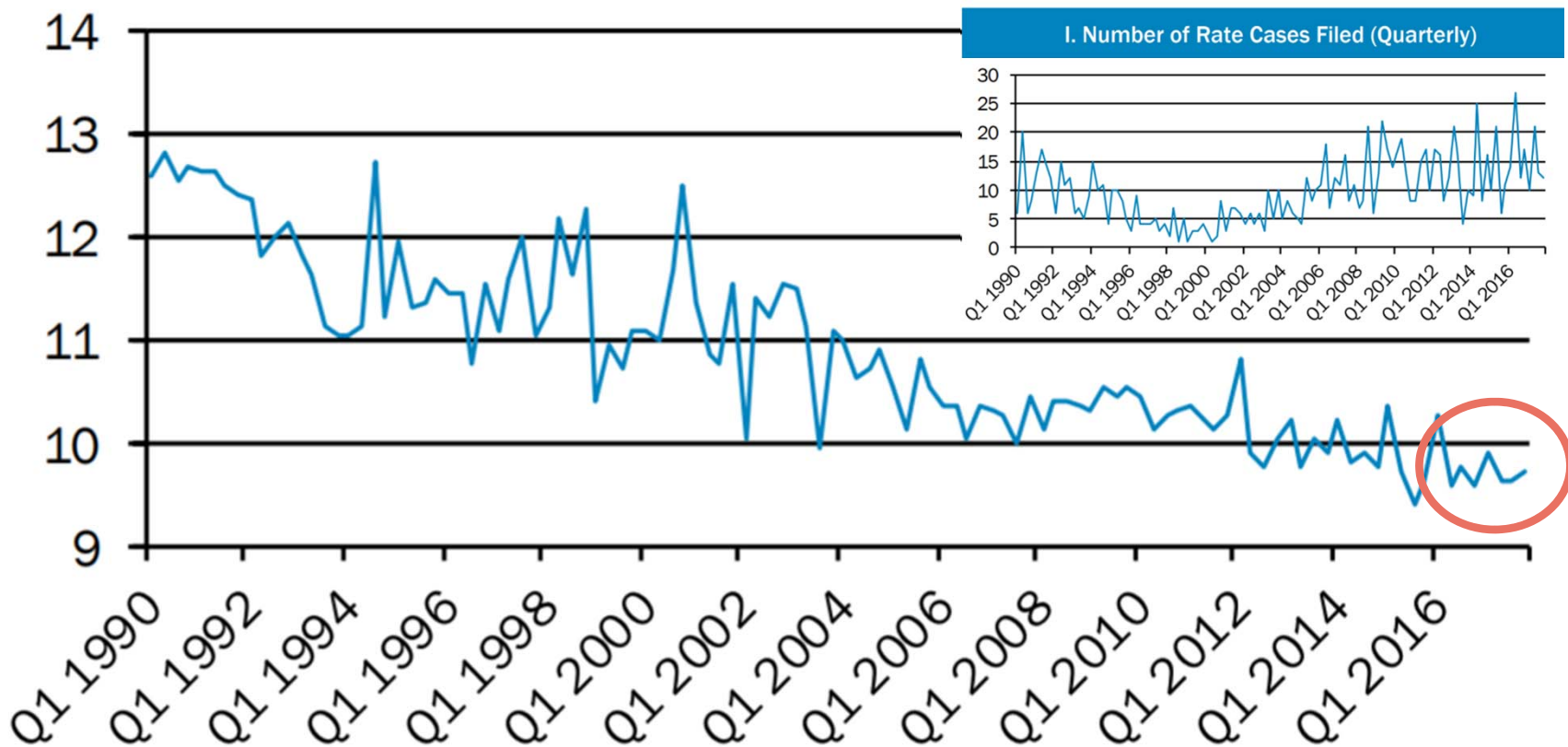




Utility Industry Valuation Drivers

◆ Rate Case Filings and Awarded ROE

Average Awarded ROE (%) Exceed Market Cost of Equity

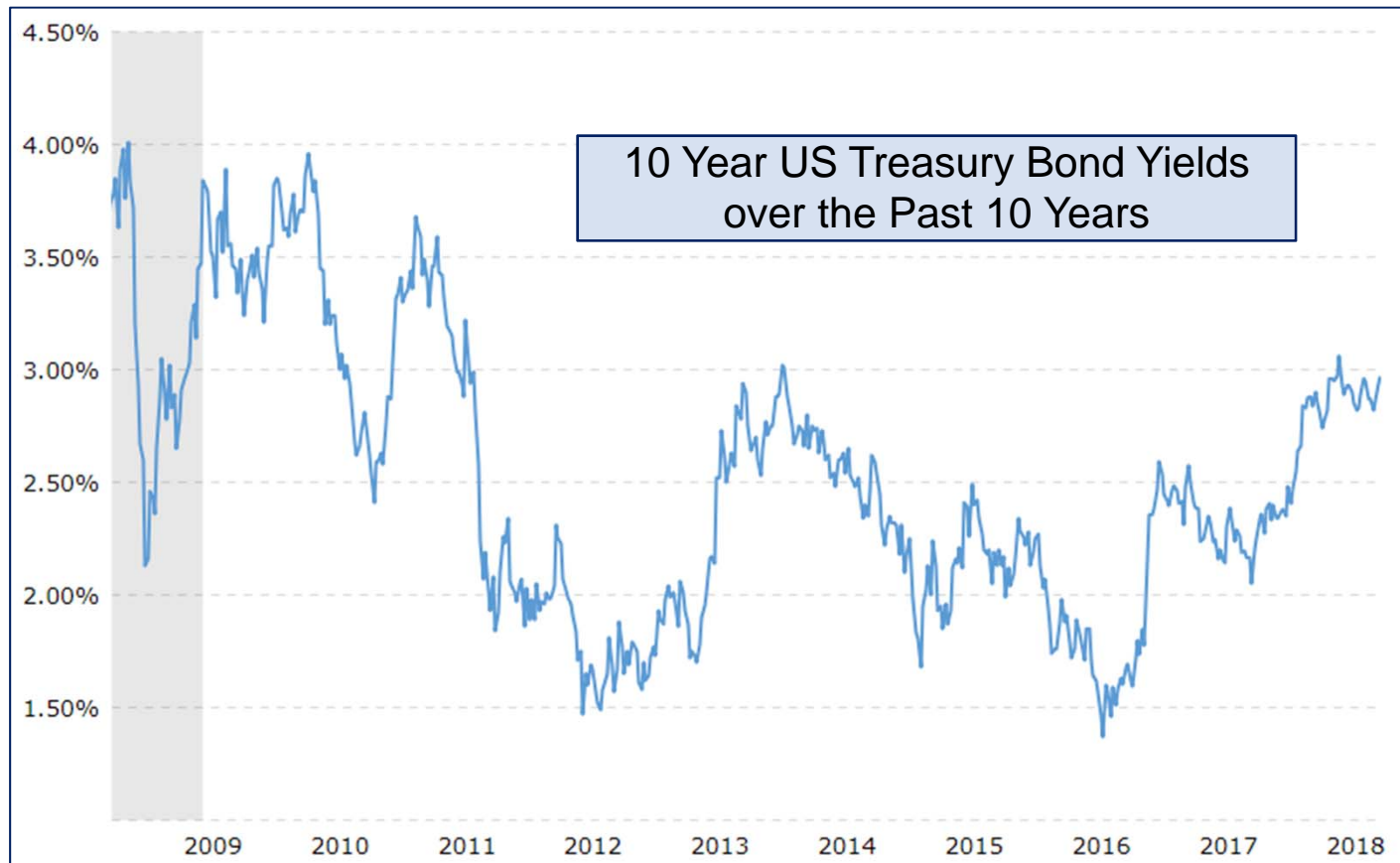


Source: S&P Global Market Intelligence / Regulatory Research Assoc. and EEI



Utility Industry Valuation Drivers

- ◆ Interest Rates Coming Off All Time Lows
 - Utilities still have access to sub 4% debt

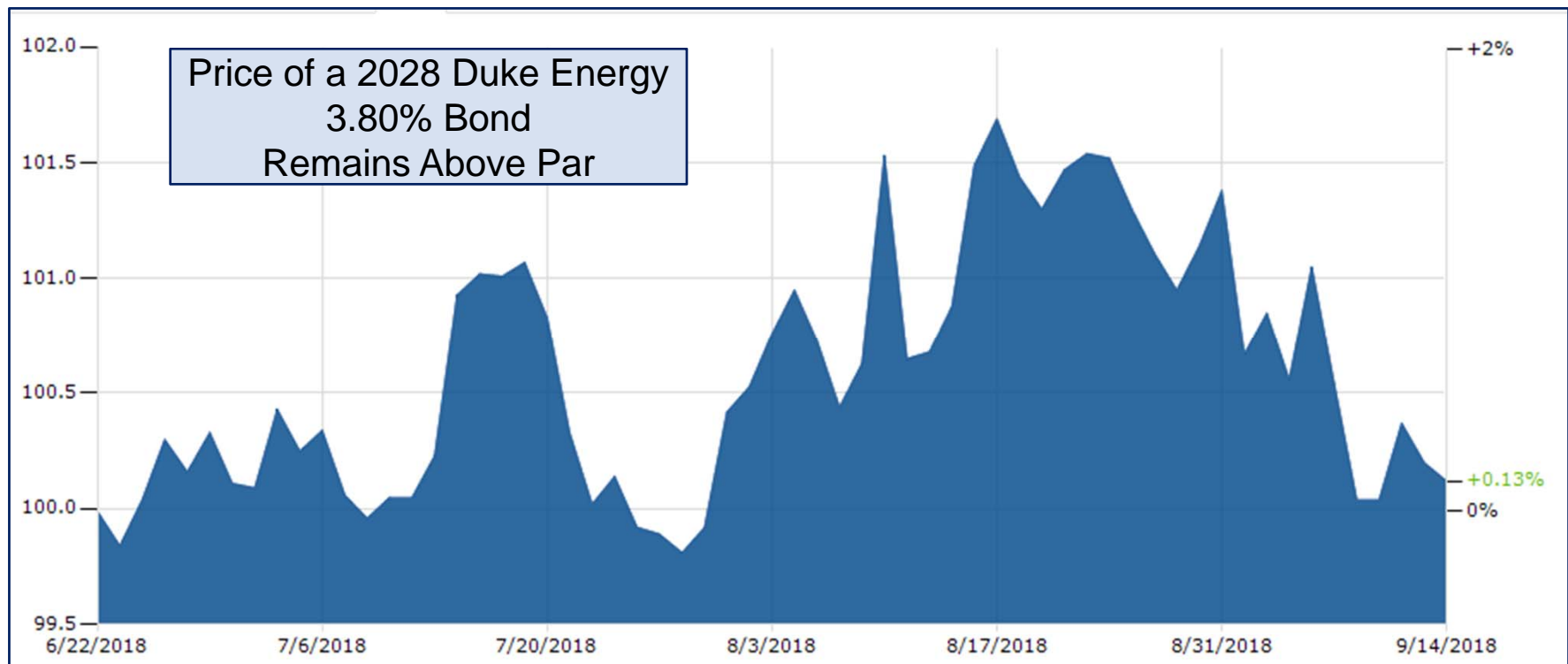




Utility Industry Valuation Drivers

◆ 10 Year Duke Energy Bonds Trade Well

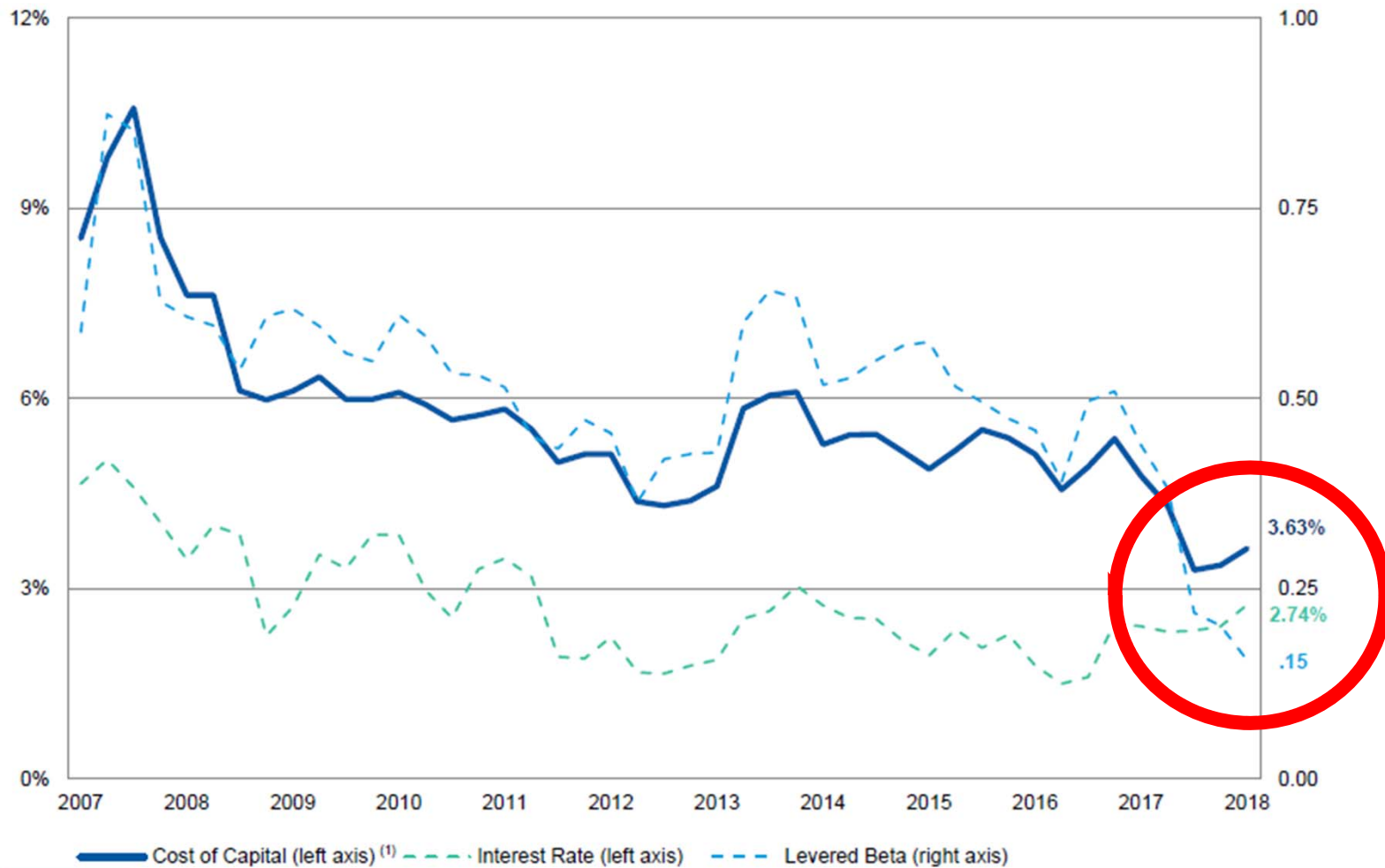
- As do most other A-rated and even high BBB-rate utility bonds





Utility Industry Valuation Drivers

After-Tax, Weighted Average Cost of Capital Remains Near All-Time Lows





Utility Industry Valuation Drivers

◆ Simple Math:

*If You Earn ~10% on Rate Base,
and Can Fund Rate Base Purchases at ~6% (or less),
then You Will Pay More for Rate Base than Rate Base.*

◆ Result:

*Pay Big P/E and EBITDA Multiples in Acquisitions
Remarkably High Multiples of Book Value*



Utility Industry Transactions and Values

Recent Very High Values for Utility Assets

- Actual transactions price at premiums to already high share prices

Buyer	Centerpoint	Sempra	Hydro One	Great Plains	Fortis	Dominion	Duke	Emera	Wider Industry Averages	
Sold	Vectrin	Oncor	Avista	Westar	ITC	Questar	Piedmont	TECO		
Date	Apr-2018	Aug-2017	Jul-2017	Jul-2017	Feb-2016	Feb-2016	Oct-2015	Sep-2015		
Total Value	\$6.0 Bn	\$18.7 Bn	\$5.3 Bn	\$11.6 Bn	\$11.3 Bn	\$6.0 Bn	\$6.7 Bn	\$10.4 Bn		
P/E Ratio	26.0 X	27.9 X	24.2 X	21.5 X	22.0 X	19.4 X	30.5 X	28.4 X		~25X
Rate Base Multiple	1.7 X	1.7 X	1.7 X	1.8 X	2.0 X	2.2 X	2.5 X	1.7 X		~ 2X



Utility Industry Acquisition Valuation Outlook

- ◆ Acquisition Interest Likely to Remain High
- ◆ Yet There are Fewer IOU Opportunities
- ◆ Could Public Power be Next?

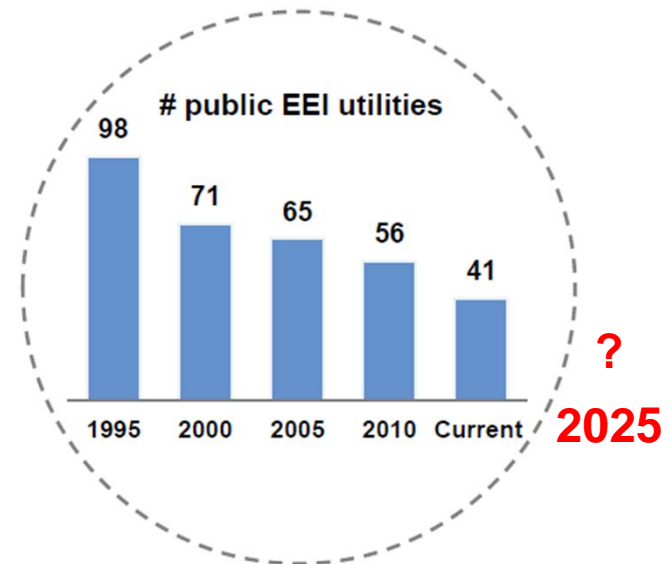
◆ Muni Merger Case Studies:

- Not initiated by IOU interest
- But by individual unique circumstances

◆ *Could that Change?*

◆ *Could the Math Ever Work?*

- *Muni historical cost advantages: Capital Cost, Taxes, Non-Profit*
- *The utility industry is not nearly as capital intensive as it was*





Merger Math



Merger Math

◆ The Financial Metrics are Reality Checks, not Drivers

- *Equity Value: P/E Ratio X Earnings = Equity Value*
- *Enterprise Value + EBITDA X Precedent Multiples*
- *Property, Plant & Equipment Net of Depreciation
NPP&E, or Rate Base Assets, Times Multiples*

◆ Discounted Cash Flow Projections Establish Value

- *After-Tax, Unlevered Discounted Free Cash Flow*
 - *After-tax cash flow to support the capital structure – or PRICE*
- *Test a wide range of assumptions and variables*

discount rates
rate scenarios

growth rates
capital program

synergies
financial markets

depreciation
taxes



Merger Math: the Discount Rate

- The Capital Cost Advantage has Eroded – and might be non-existent

- IOU Acquisition

Discount Rate Build Up

Risk free rate ¹		2.5%	
Equity risk premium	5.50%	–	6.50%
Levered beta	0.20	–	0.75
Cost of equity	3.6%	–	7.4%
Pre-tax cost of debt		4.0%	
Post-tax cost of debt		3.2%	
Debt/total cap target		40.0%	
Calculated discount rate	3.4%	–	5.7%
Selected discount rate	4.25%	–	4.75%

- Discount Rate is Below Most Public Power Long-Term Planning Interest Rate Assumptions, and Well Below Allowable ROEs
- This “Arbitrage” Explains Very High Multiples to Book and to Rate Base



Merger Math: Valuation Methodologies and Metrics

◆ The “Revenue Build” Starts With Rate Base, and Adds Costs

Sample Revenue Requirement Build Model

REVENUE BUILD FROM RATE BASE		2018	2019	2020	2021	2022
Rate Base		\$ 300,000	\$ 303,000	\$ 306,030	\$ 309,090	\$ 312,181
Equity	50%	\$ 150,000	\$ 151,500	\$ 153,015	\$ 154,545	\$ 156,091
Debt	50%	\$ 150,000	\$ 151,500	\$ 153,015	\$ 154,545	\$ 156,091
Net Income Return on Equity	10%	\$ 15,000	\$ 15,150	\$ 15,302	\$ 15,455	\$ 15,609
Federal & State Income Taxes	25%	\$ 5,000	\$ 5,050	\$ 5,101	\$ 5,152	\$ 5,203
Earnings Before Taxes		\$ 20,000	\$ 20,200	\$ 20,402	\$ 20,606	\$ 20,812
Interest on Rate Base Debt	4%	\$ 6,000	\$ 6,060	\$ 6,121	\$ 6,182	\$ 6,244
Depreciation and Amortization		\$ 20,000	\$ 20,200	\$ 20,402	\$ 20,606	\$ 20,812
EBITDA		\$ 46,000	\$ 46,460	\$ 46,925	\$ 47,394	\$ 47,868
Non-Income Related Taxes		\$ 15,000	\$ 15,150	\$ 15,302	\$ 15,455	\$ 15,609
O&M		\$ 25,000	\$ 25,250	\$ 25,503	\$ 25,758	\$ 26,015
Gross Margin		\$ 86,000	\$ 86,860	\$ 87,729	\$ 88,606	\$ 89,492
Fuel and Purchased Power		\$ 50,000	\$ 50,500	\$ 51,005	\$ 51,515	\$ 52,030
Overall Revenue Requirement		\$ 136,000	\$ 137,360	\$ 138,734	\$ 140,121	\$ 141,522



Merger Math: Valuation Methodologies and Metrics

From Revenue to After-Tax, Discounted Free Cash Flow

Sample Discounted Cash Flow: \$480MM for \$300MM Rate Base

UNLEVERED CASHFLOW		2018	2019	2020	2021	2022
Revenue Requirement		\$ 136,000	\$ 137,360	\$ 138,734	\$ 140,121	\$ 141,522
Fuel and Purchased Power		\$ 50,000	\$ 50,500	\$ 51,005	\$ 51,515	\$ 52,030
Gross Margin		\$ 86,000	\$ 86,860	\$ 87,729	\$ 88,606	\$ 89,492
Other Payments and Taxes		\$ 15,000	\$ 15,150	\$ 15,302	\$ 15,455	\$ 15,609
O&M		\$ 25,000	\$ 25,250	\$ 25,503	\$ 25,758	\$ 26,015
EBITDA		\$ 46,000	\$ 46,460			
Less: Cap Ex		\$ 20,000	\$ 20,200			
Less: Taxes		\$ 2,500	\$ 2,525			
Unlevered Free Cash Flow		\$ 23,500	\$ 23,735			
Aft-Tax Unlevered CashFlow @	4.50%	\$ 360,233	\$ 23,735			
Terminal Value - Earnings X P/E	15X	\$ 18,000	\$ 270,000			
Combined NPVs		\$ 483,389				
Potential Synergies @	4.50%	\$ 123,156	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Terminal Value - Earnings X P/E	15X	\$ 5,000	\$ 75,000			

Terminal Value estimates are big value drivers.

Project cash flow for ~5-7 yrs

Then apply P/E multiple to final year earnings

* Synergies – where do they come from and who keeps them?



Merger Math: Valuation Methodologies and Metrics

- ◆ If and After a Buyer is Willing to Pay Big \$\$\$
- ◆ Estimated Adjustments to Arrive at Net Proceeds

- *Cost to retire debt balance*

Debt defeasance cost can be 110-120% of par

- *Cost to terminate fuel and interest rate hedges* ?
- *Potential termination or assumption of fuel and power contracts*
- *Treatment of Pension and OPEB Liabilities* ?

- *Expected excess cash and investments to be available*

Amounts above required operating cash flow

DSRF, Cap Ex, Asset Retirement, Rate Stab ...



Merger Math: Valuation Methodologies and Metrics

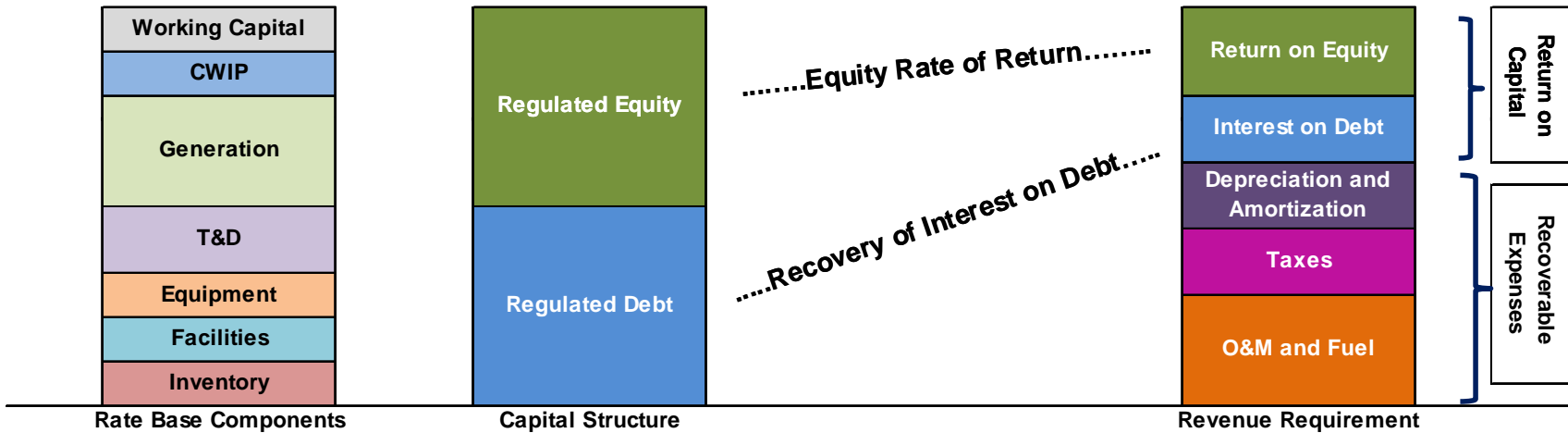
- ◆ In Some Cases, There Could be a Lot of \$\$\$ Left Over
- ◆ But this is Only Half the Story – What About Rates?
- ◆ What About the “Owner” – Who Exactly is the Owner?
- ◆ In Public Power, We Talk About “Ratepayer Owners”
 - *Ownership/Control Structures Vary in Public Power*
 - *City, District, Authority, Board*
- ◆ Owners Could Chose to Reduce Rates With Excess \$\$
- ◆ Or Use Funds for Other Purposes
- ◆ Ratemaking Will be Much Different Under Regulation



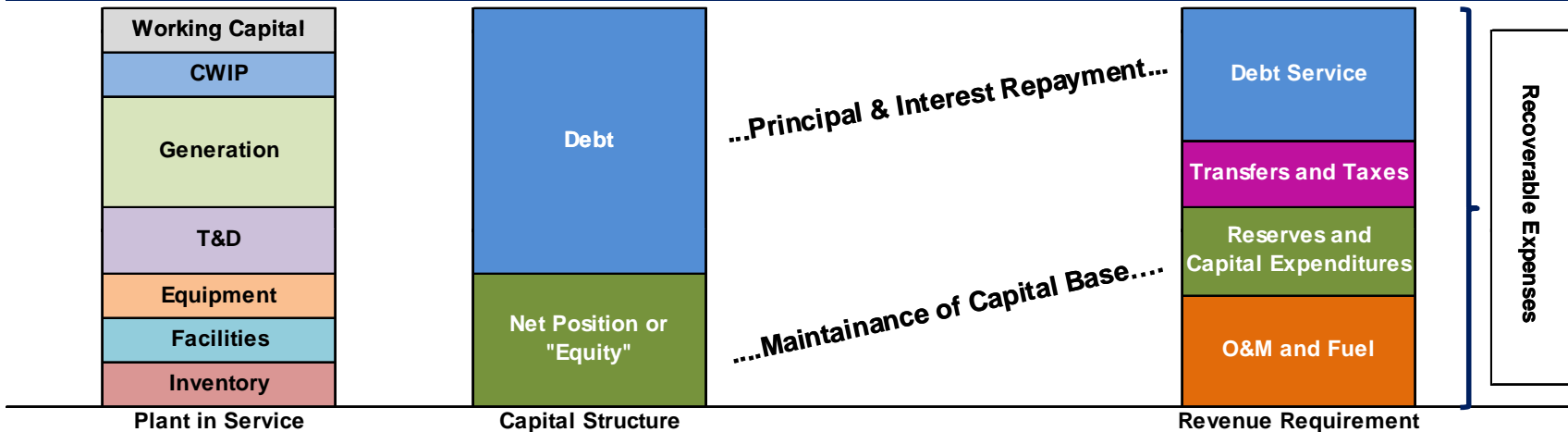
Rate Base vs. Rates – Very Different Models

What About Rates?

IOU Financial Structure



Public Power Financial Structure

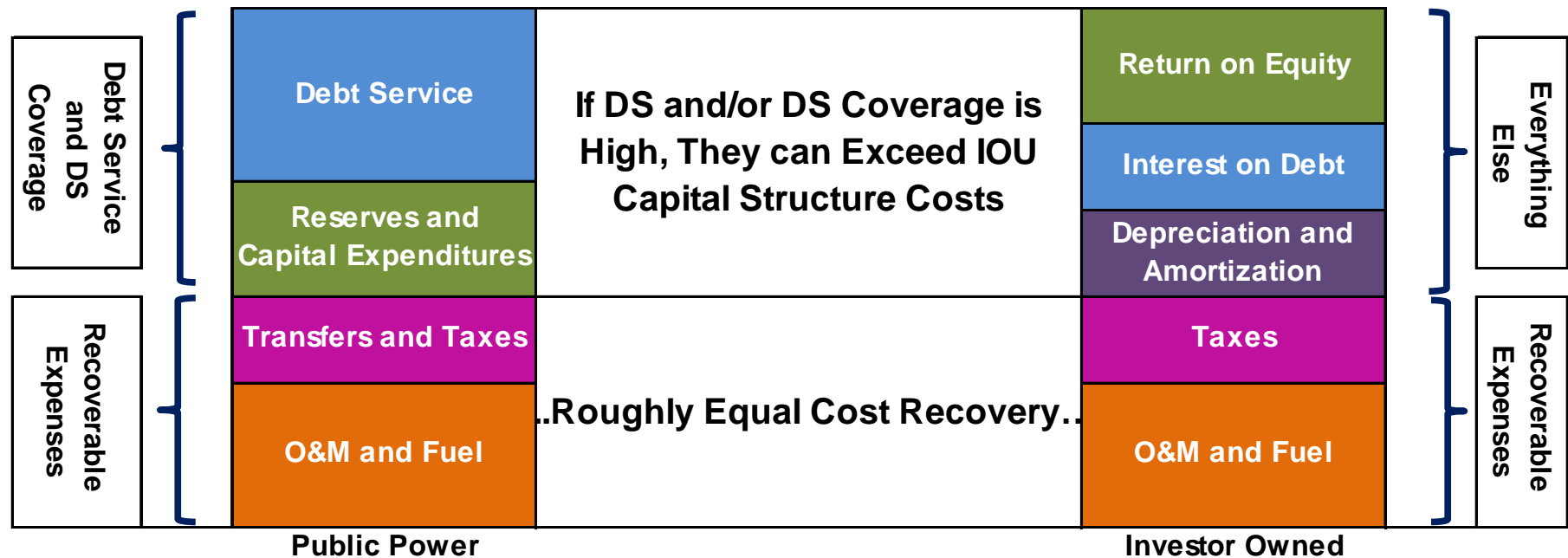




Rates

- ◆ Maybe not as Different as You'd Expect – in the Short Run

IOU and Public Power Revenue Requirements



- Especially if the public power utility has a conservative debt structure
- And has been fiscally responsible to prepare for the future



Differing Approach to Rates and the Business

- ◆ Major Difference Between IOUs and Public Power
 - *IOU faith in the regulatory rate recovery system*
 - *Public Power concern for rate competitiveness and demand*
- ◆ Much of Public Power Wants to Shrink the Balance Sheet, While IOUs Seek Ways to Grow It
- ◆ It Leads to Very Different Approaches to the Business
 - *“Why are we in this business?” vs “We love this business”*
 - *Sometimes like the difference between Defense and Offense*
- ◆ And Could Lead to Big Changes in the Future



Is Public Power a Takeover Target?

- ◆ Some of Public Power is VERY Attractive
 - *Would need to be big enough to make a difference*
 - *Several hundred million of Rate Base Assets*
 - *Low debt to asset ratio*
 - *Solid free cash flow*

This Describes some Very Good Public Power Systems

- ◆ Smaller than the Top 100 are Probably not IOU Targets
 - *But could be Coop consolidation targets*
- ◆ *Larger Public Power and Combined Utility Customer Bases, and Customer Contact have Great Potential Value*



Local Impacts and Considerations

Back to Reality



Important Considerations - Reality

- ◆ Future Utility Rates – Moving to a Regulated Environment
- ◆ Employment and Workforce
- ◆ Pension and Benefits
- ◆ Future Financial Flexibility (aka – eating the Golden Goose)
- ◆ Transfer Payments vs. Private Owner Taxes
- ◆ Local Economic Impacts, Efficiencies and Econ Development
- ◆ Service, Responsiveness and Performance
- ◆ Policy and Priorities
- ◆ FEMA Aid Eligibility
- ◆ Execution Complexity and Challenges



Important Considerations

◆ Future Utility Rates – Moving to a Regulated Environment

- *State Utility Commission Regulation – Loss of Local Control*
- *Regulated ROEs often exceed 10%*
- *Big CIP programs are attractive to buyers*
- *Regulated Rate freezes can be imposed as a sale condition*
- *Examine projected long-term, rate differential*
- *Win-Win sounds good in theory, but tough for shareholders and ratepayers to both be better off over the long run*

◆ Employment and Workforce

- *Most buyer assumptions would include eventual reductions*
- *Labor can be an active advocate for public power*
- *Workforce guarantees are a negotiated condition in most asset sales*



Important Considerations

◆ Pension and Benefits

- *Unfunded liabilities may require funding*
- *Unclear definition of funding – current liability or future obligations*
- *Whose obligation is it? Current/Future utility “owner” or ratepayers*

◆ Future Financial Flexibility

- *Utility ownership creates options for local gov’t owners*
- *Not always an “easy” flexibility, or a credit positive feature*
- *Ability to balance constituent needs expires with an asset sale*



Important Considerations

◆ Utility Transfer Payments vs. Private Owner Taxes

- *There are multiple forms of public power payments*
PILOTs/Transfers Franchise Fee Public Service Tax Dividends
- *Private utilities have a different tax structure*
Property Taxes Franchise Fee Public Service Tax
- *Sale conditions can be imposed to “hold harmless” the local gov’t*
 - Generally for a limited number of years
- *Additional taxes likely paid to other jurisdictions under private owner*
 - Federal, State, County, School



Important Considerations

- ◆ Economic Impacts, Efficiencies, and Econ Development
 - *Utilities are large employers and economic contributors*
 - *Local gov't partnerships and synergies achieve efficiencies, cost savings, policy priorities*
 - *Utilities are often a key component of economic development efforts*
 - *Sale conditions could include commitments to maintain a presence, and encourage similar level of local economic activity*
 - *But difficult to document and measure over the long run*



Important Considerations

◆ Service, Responsiveness and Performance

- *Historical public power vs. IOU comparisons favor public power*
- *Local priorities and accountability*
- *Responsiveness to weather events and emergencies*
- *Performance-based IOU returns are possible*
 - *But difficult to document and measure over the long run*



Important Considerations

- ◆ Policy and Priorities will be Different
 - *Environmental objectives*
 - *Low Income assistance*
- ◆ IOUs Generally Not Eligible for FEMA Disaster Aid
 - *IOUs storm/flood costs are recovered from ratepayers*
 - *Public power utilities have received Billion\$ from FEMA*



Important Considerations

◆ Execution Complexity and Challenges

- *Existing contractual arrangements*
 - Combined real estate and right-of-way agreements
 - Long-term business contracts
- *Combined utilities – electric, water, sewer, district energy*

◆ At the End of Day – More Questions than Answers

◆ And Numbers are Only Part of the Story

◆ The Reality of “Privatization” Can be Daunting, and Maybe Impossible in Many Cases



Comments and Questions