



Bonneville Power Administration

Financial and Strategic Plan Workshop

Public Power Trends

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March 2, 2018

PFM

Charlotte, NC

pfm.com



Introduction

➤ Public Financial Management

- *Offering financial and investment advice to governments & not-for-profits*
- *650+ professionals in 40+ offices throughout the US*
- *Separate operating companies*

Public Financial Management

Financial Advice & Strategic Consulting

\$75+Bn/Yr Capital Markets Transactions

12 Person Public Power Group

SEC Registered and Regulated

PFM Asset Management

Investment Management & Consulting

SEC Registered & Regulated

Managing \$120+ Billion of Client Assets

- *Advisory only - no bond underwriting or trading for our own account*
- *Working with over half of the 50 largest public power borrowers*



What's Going on In Public Power?

- ◆ Or, Why It's Good to be in the Pacific Northwest!
- ◆ Hear About Some Problems You Don't Have
 - Public Power Asset Sales
 - Generation Update
 - Renewables and DG
 - Tax Reform Impacts



Trends in Public Power Finance

- ◆ Are There “Trends” in Public Power Finance?
- ◆ There is Nothing that “Everybody is Doing”
- ◆ Other than Being Hard at Work “Not Building Generation”
- ◆ But There are a Lot of Interesting Things Going On
- ◆ Regional and “Fact Pattern” Specific



Is Public Power for Sale?

NextEra's proposal to buy Santee Cooper includes partial refunds for customers

Vero Beach electric sale to Florida Power & Light clears major hurdle

Draft study on JEA sale: Utility has more 'net value' than ever before

Puerto Rico's Utility Moves Toward Privatization, With Strained Cooperation

Five other companies expressed interest in buying Anchorage power company





Few Commonalities in this “Trend”

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Utility Industry Valuation Trends

- ◆ Public Power Had a Large Capital Cost Advantage in a Capital Intensive Business



Utility Industry Valuation Trends

- ◆ Public Power Had a Large Capital Cost Advantage in a Capital Intensive Business
- ◆ Conditions Have Changed
 - Financial markets – *low taxable interest rates, high stock prices*
 - Corporate tax structure – *lower tax rates, revision in deferred taxes*
 - Utility industry – *less capital intensive, greater technology/business risk*
- ◆ Supply/demand characteristics in the market for utility assets
 - *Utilities see less “organic” growth in their service territory*
 - *Acquisitions provide the most meaningful growth opportunity*
 - *Consolidation has reduced the number of acquisition targets*
- ◆ Stronger and Weaker Munis Can be Targets



JEA Example: Origins of the Report

◆ November, 2017 JEA Board Meeting: Questions Posed:

Would the customers of JEA and the people of Jacksonville be better served in the private marketplace?

Should JEA and the City of Jacksonville consider the financial benefits that would come from the privatization of JEA?

◆ December, 2017 JEA Board Meeting: Follow Up

... evaluate our prospective position in the marketplace, and report back on what the private market value of JEA may be so the citizens of Jacksonville and the mayor and other constituencies — City Council — can evaluate that opportunity.

◆ JEA Requests Report from Public Financial Management



Valuation Methodologies and Metrics: Results

Valuation Method/Metric	Lower Values	Higher Values	Range of Indicative Total Enterprise Values for JEA							
Discounted Cash Flow	\$7.9 Bn Mid Discount Rate No Synergies Low Terminal Mult.	\$10.1 Bn Lower Discount Rate Moderate Synergies Medium Terminal Mult.								
Price Earnings Ratio	\$8.5 Bn Low-Mid Multiple Low Debt	\$10.2 Bn High Multiple Moderate Debt								
Cash Flow Multiple	\$7.5 Bn Low-Mid Multiple Low-Mid Cash Flow	\$10.3 Bn High Multiple High-Mid Cash Flow								
Rate Base Multiple	\$8.1 Bn 1.5X Net PP&E	\$11.0 Bn 2.0X Net PP&E								
Enterprise Value (\$Bn)			7.5	8.0	8.5	9.0	9.5	10.0	10.5	11

JEA Discussion is Very Preliminary at this Point, and any Sale Proceeds Must be Applied to Retire JEA's ~\$4 Billion in Debt



Important Considerations

- ◆ Future Utility Rates – Moving to a Regulated Environment
- ◆ Employees
- ◆ Transfer Payments vs. Private Owner Taxes
- ◆ Local Economic Impacts and Efficiencies
- ◆ Execution Complexity and Challenges
- ◆ There is Likely to be More Focus on this Topic
- ◆ But Maybe More Discussion than Transactions



Generation Assets – Are they Assets?

- ◆ Gainesville Paid \$750MM for a Biomass Project that is Largely Idle
 - And will save \$20+MM a year by doing it
- ◆ JEA Bought FPL Share of a Large Coal Plant
 - And was paid over \$100MM to do it, then decommission
- ◆ SCANA and Santee Cooper Suspend Summer Units
- ◆ Southern, MEAG and Oglethorpe get GPSC Approval to Move Forward with Vogtle
 - Allowable in Georgia Power's rate base
 - Additional DOE funding commitment
 - Production Tax Credit legislation



Generation Assets – Renewables March On

◆ Several Recent Large Renewable RFPs and Programs

- NYPA RFP for Resale to NY Governmental Customers
- JEA RFP for ~250MW of Solar
- Austin Energy RFP for ~200MW
- SRP RFP for 100MW
- IMPA Installs, Sells, Prepays for Solar
- LIPA RFP and Offshore Wind

◆ Prepayment Structures Incorporated in Bidding Processes

- Enhanced economics, but also enhanced complexity/uncertainty
- Prepayment structure onboards certain ownership risks

◆ Rating Agencies Look More Closely at PPAs as Fixed Costs



Distributed Generation, and Credit Impacts

◆ Wholesale Joint Action Agencies

- JPA owns solar on the other side of member meters
- Steady build out over time
- Free land, no taxes, long amort, cheap interconnection = LOW COST

◆ Retail Systems Continue to Adjust Rate Structures

- Not without resistance
- Emphasizing “fairness”

◆ Failure to Adjust Rates and Recover Fixed Cost Will be a Credit Concern



Rate Structures Evolve Beyond DG

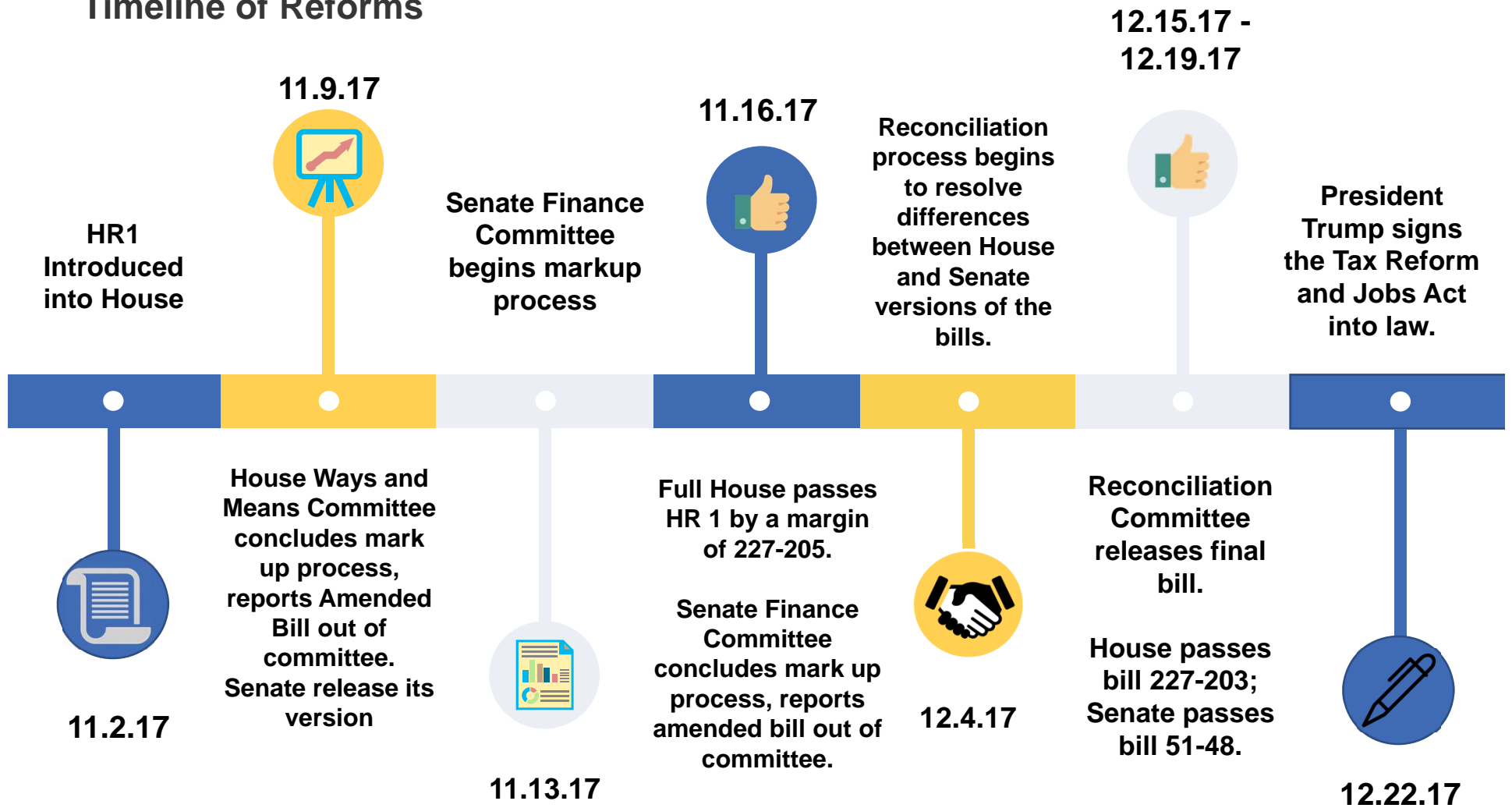
- ◆ LIPA – Adjusters on Top of Adjusters
- ◆ Automatic Adjustment Mechanisms
 - Fuel and Purchased Power
 - Demand and Conservation Impacts
 - Capital Costs
 - Certain Governmental Payments
 - Storm Damages
 - Interest Rates
- ◆ Close to Autonomous [Driverless] Budget and Rate Setting
- ◆ But Very Helpful in LIPA's Quasi-Regulated Structure



Overview of Tax Reforms & Considerations



Timeline of Reforms





Tax Reform - Summary of Muni Impact Provisions

Issue	House Bill	Senate Bill	Final Bill
State and Local Tax Deduction	Partial repeal with property tax cap	Total repeal	Caps SALT Deduction at \$10k
Mortgage Interest Tax Deduction	Cap at \$500k and one home	Maintain \$1M cap	Capped at \$750k
Corporate Tax Rate Cut	Cut to 20% in 2018	Cut to 20% in 2019	Immediate cut to 21%
Top Individual Tax Rate	Max rate retained at 39.6%	Max rate declines to 38.5%	Declines to 37%
Private Activity Bonds	No longer tax exempt	Maintain tax exemption	Maintain tax exemption
Advanced Refunding	No longer tax exempt	No longer tax exempt	No longer tax exempt



Impact on Bond Buyers

- ◆ Lower max individual tax rate by 2.6%, means 0.13% on 5% bond
- ◆ Lower corporate tax rate by 14% may take some BIG buyers out of the market
 - Commercial Banks
 - Insurance Companies
- ◆ Lower corporate rate has already lead to higher rates on direct loans with automatic tax rate adjustment language



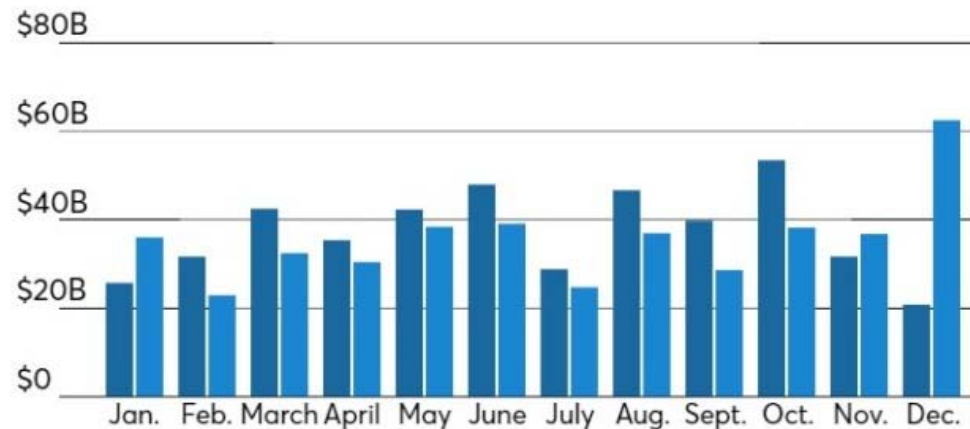
A Record December

- Threat of tax reform to both PABs and Advance Refundings led to a rush to market. Record volume in December.
- While PABs were left unchanged, Advance Refundings have been eliminated.
- What will this market rush mean for bond volume in 2018?

December to remember

Long-term municipal bond issuance

● 2016 ● 2017



Source: Thomson Reuters

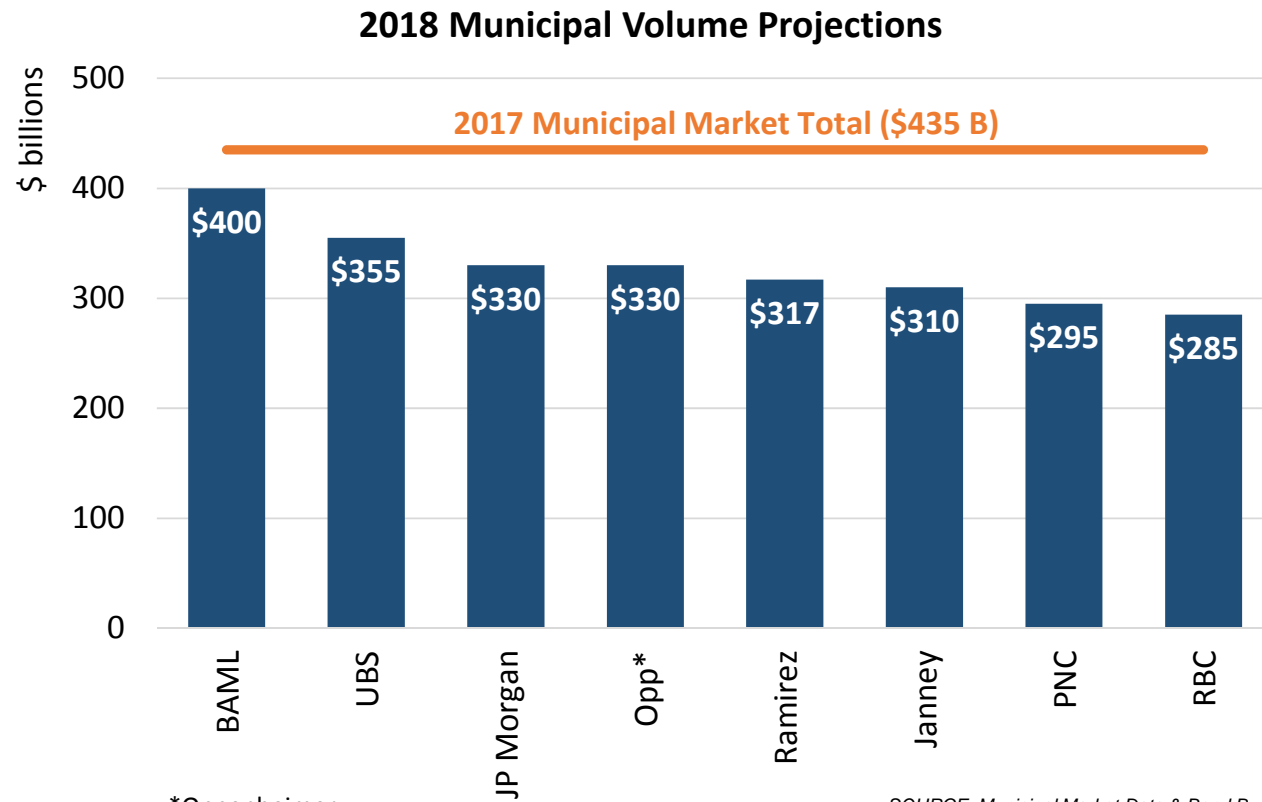
The Stats:

- 2017: \$435 billion sold (\$17 billion short of 2016 record)
- \$145 billion in Q4 (33% of full year amount)
- \$62.5 billion in December – a new record
 - 3x higher dollar volume than December, 2016
 - Previous monthly record: \$54.7 billion (1985)



What to Expect in 2018

- Lower volume with higher rates, no advance refundings and 2017 surge
- Market consensus lands at approximately \$340 billion (22% below 2017)
- Some predict issuance levels to come in below \$300 billion



SOURCE: Municipal Market Data & Bond Buyer