# Vero Beach Power Supply Costs & Rate Impacts

Recommendation:

Accept New OUC PPA with "Levelized" or "Levelizing" Capacity Charges

- Substantial Cost Savings vs. Existing PPA
- Substantial Rate Reductions vs. Existing PPA
- More Stable Rate Trajectory, 2016-2023

# New OUC PPA – Major Provisions

- Shorter Term – Through 12/31/2023 vs. 12/31/2029
- Lower Capacity/Demand Charges for Base Power
  - Ex. $10,978 vs. $13,760/MW-month in 2016,
  - Ex. $9,705 vs. $14,950/MW-month in 2019
- Peaking Capacity & Energy (Replaces Big Blue)
- Minimum Demand of 85 MW (Value to OUC)
- City Allowed to Reduce Peak Demand for Billing Calculations by 10 MW
- OUC Retains Gas Transportation Contracts

# New OUC PPA – Other Provisions

- Bilateral Force Majeure Provision
- Change in Law Provision
- Clarification of Energy Billing Determinants
- Start Lower Base Purchases in October 2015 even if full transmission for peaking purchase is not available (significant savings due to early start)
- Continued provision of Compliance Services to City
- Capacity Deficiency Provisions if City exceeds total purchased capacity
- Clarifying and conforming provisions

# Why Accept New OUC PPA?

- "Macro" Considerations
  - Total NPV Savings of $119.7 Million vs. Existing PPA
    - 2016-2023: $51.8 Million Savings vs. Existing PPA
    - 2024-2029: $67.9 Million Savings vs. Existing PPA
  - Total Nominal Savings of $171.4 Million vs. Existing PPA
- "Micro" Considerations
  - Substantial Cost Reductions per Retail MWH
  - Substantial Rate Reductions per Retail MWH
  - Smoother, More Sustainable Future Rates
    - Projected Residential Rate in 2023 is 0.5% higher than 2016

# Projected Savings from New OUC PPA Total Savings vs. Existing PPA

**VERO BEACH BULK POWER SUPPLY ANALYSIS SUMMARY 2016-2029**

| | | Total BPS Costs 2016-2029 | Total Present Value BPS Costs 2016-2029 | Delta in PV of Costs |
|---|---|---|---|---|
| **Base Case** | Continue OUC contract under existing terms, continue operation of Vero Beach Plant | $1,056,382,056 | $777,993,578 | Base |
| **Alt Case 1** | Cancel OUC Contract, Pay $50 million termination fee, Retire Vero Beach Plant and Contract BPS to Market | $863,589,610 | $642,051,004 | -$135,942,574 |
| **Alt Case 2 Levelized** | Accept OUC Nov 25 Terms, Reduce term to 2023, Eliminate St. Lucie Option, Retire Vero Beach Plant, Market purchases 2024 thru 2029 | $885,020,934 | $658,329,389 | -$119,664,189 |
| | Difference, Go To Market vs. New OUC PPA = | | $16,278,385 | |

Revised 10/2/2015 to reflect "levelizing" demand charges and also to reflect final updated FY 2016 costs for Vero Beach Power Plant per final City budget.

# Projected Savings from New OUC PPA By Time Period (New PPA & Early Termination)

**VERO BEACH BULK POWER SUPPLY ANALYSIS SUMMARY 2016-2023**

| | | Total BPS Costs 2016-2023 | Total Present Value BPS Costs 2016-2023 | Delta in PV of Costs |
|---|---|---|---|---|
| **Base Case** | Continue OUC contract under existing terms, continue operation of Vero Beach Plant | $564,847,291 | $470,546,142 | Base |
| **Alt Case 2 Levelized** | Accept OUC Nov 25 Terms, Reduce term to 2023, Eliminate St. Lucie Option, Retire Vero Beach Plant, Market purchases 2024 thru 2029 | $502,133,805 | $418,760,591 | -$51,785,551 |

**VERO BEACH BULK POWER SUPPLY ANALYSIS SUMMARY 2024-2029**

| | | Total BPS Costs 2024-2029 | Total Present Value BPS Costs 2024-2029 | Delta in PV of Costs |
|---|---|---|---|---|
| **Base Case** | Continue OUC contract under existing terms, continue operation of Vero Beach Plant | $491,534,766 | $307,447,436 | Base |
| **Alt Case 2 Levelized** | Accept OUC Nov 25 Terms, Reduce term to 2023, Eliminate St. Lucie Option, Retire Vero Beach Plant, Market purchases 2024 thru 2029 | $382,887,129 | $239,568,797 | -$67,878,638 |

# Projected Savings from New OUC PPA Rate for 1,000 kWh Residential Service

| Date | Existing PPA | New OUC PPA | New-Existing |
|---|---|---|---|
| 11/1/2013 | $ 130.93 | N/A | N/A |
| 2/1/2014 | $ 129.43 | N/A | N/A |
| 6/1/2014 | $ 123.93 | N/A | N/A |
| 9/1/2015 | $ 122.08 | N/A | N/A |
| 12/1/2015 | $ 122.08 ($123.93)* | $ 119.58 | **$ 2.50** |
| 10/1/2016 | $ 128.25 | $ 117.45 | **$ 10.80** |
| 10/1/2017 | $ 130.48 | $ 118.60 | **$ 11.88** |
| 10/1/2018 | $ 132.58 | $ 120.55 | **$ 12.03** |
| 10/1/2019 | $ 132.94 | $ 120.24 | **$ 12.70** |

* $123.93 if not for surplus flow-back implemented 9/1/2015.

**Projected Vero Beach Costs per MWh and Rate Impacts, 2016-2023**
**09/29/2015**

| | Projected Fiscal Year Ending September 30, | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Base Case** | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| City Non-fuel Production Costs | **$7.98** | **$8.12** | **$8.27** | **$8.42** | **$8.58** | **$8.74** | **$8.91** | **$9.08** |
| City Distribution & Administration Costs | 35.75 | 36.35 | 36.77 | 37.22 | 37.68 | 38.15 | 38.62 | 31.98 |
| Total City Costs per MWh Sold | $43.73 | $44.47 | $45.04 | $45.64 | $46.26 | $46.89 | $47.53 | $41.06 |

| | Projected Fiscal Year Ending September 30, | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Case 1 - OUC Proposal** | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| City Non-fuel Production Costs [*] | $4.68 | $1.15 | $1.16 | $1.17 | $1.19 | $1.20 | $1.21 | $1.22 |
| City Distribution & Administration Costs | 35.75 | 36.35 | 36.77 | 37.22 | 37.68 | 38.15 | 38.62 | 31.98 |
| Total City Costs per MWh Sold | $40.43 | $37.50 | $37.93 | $38.39 | $38.87 | $39.35 | $39.83 | $33.20 |

[*] Partial shut-down Dec. 2015 / Full shut-down Jul. 2016. $832,000 in total production costs retained beyond FY16.

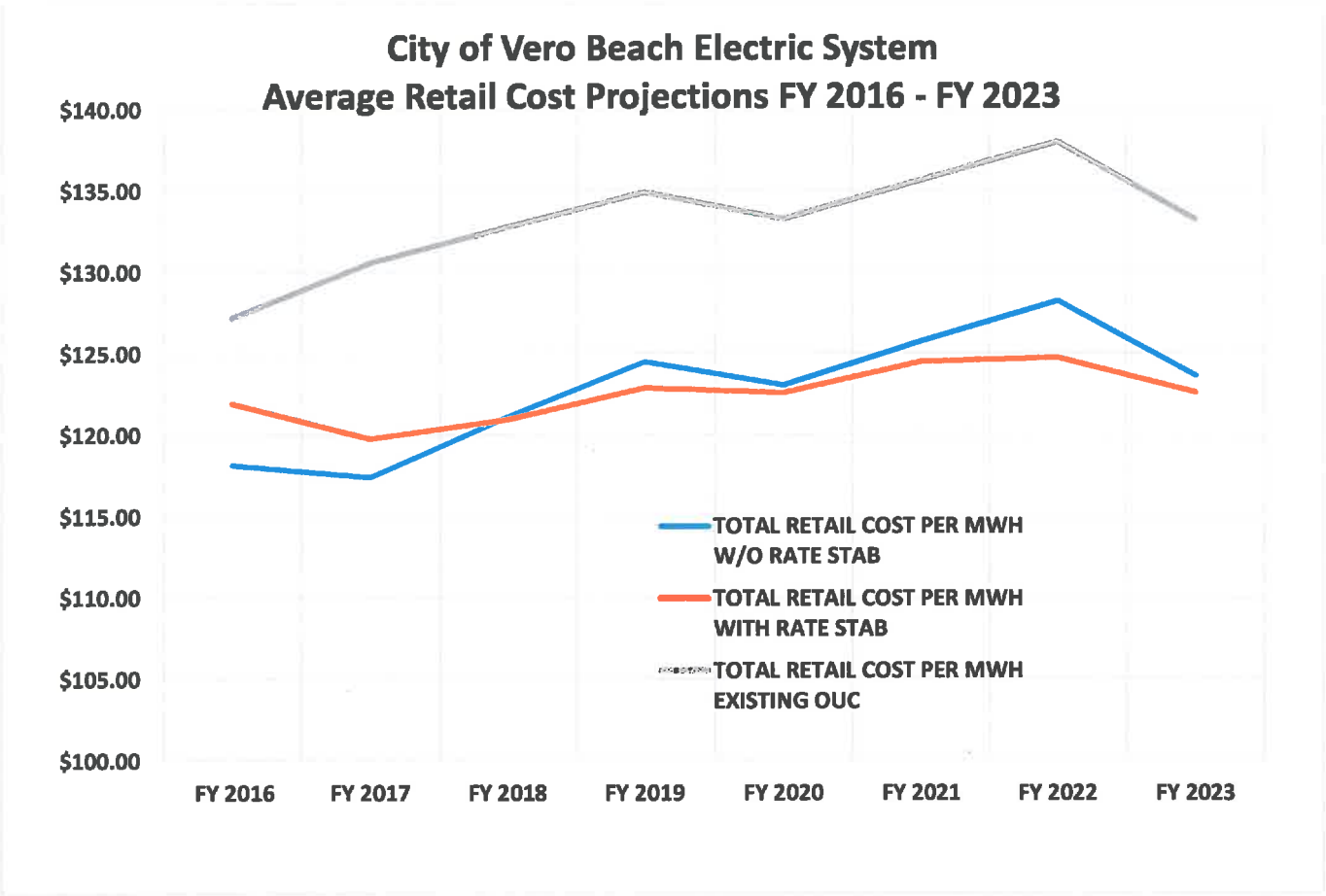
| | | | |
|---|---|---|---|
| Average Revenue per MWH as of 08/31/2015 | $126.27 | Average Residential Bill 08/31/2015 | $123.93 |
| Less BPCA Reduction | 1.85 | Less BPCA Reduction | 1.85 |
| Current Average Revenue per MWh | $124.42 | Current Average Residential Bill per MWh | $122.08 |

| | Projected Fiscal Year Ending September 30, | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| "Levelized" BPS Costs 09/29/2015 per MWh | $86.17 | $83.44 | $84.17 | $85.67 | $84.90 | $86.33 | $86.11 | $90.62 |
| Total City Costs per MWh Sold | 35.75 | 36.35 | 36.77 | 37.22 | 37.68 | 38.15 | 38.62 | 31.98 |
| Total Cost | **$121.92** | **$119.79** | **$120.94** | **$122.89** | **$122.58** | **$124.48** | **$124.73** | **$122.60** |
| Average Revenue per MWH as of 08/31/2015 | $126.27 | $126.27 | $126.27 | $126.27 | $126.27 | $126.27 | $126.27 | $126.27 |
| Cumulative Decrease in Total Costs | ($4.35) | ($6.48) | ($5.33) | ($3.38) | ($3.69) | ($1.79) | ($1.54) | ($3.67) |
| | -3.4% | -5.1% | -4.2% | -2.7% | -2.9% | -1.4% | -1.2% | -2.9% |

**Projected Residential Bill per MWh - If Applied Increases (Decreases) in Costs to the Variable Component of the Rates**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Average Residential Bill 08/31/2015 | $123.93 | $123.93 | $123.93 | $123.93 | $123.93 | $123.93 | $123.93 | $123.93 |
| Cumulative Decrease in Total Costs | ($4.35) | ($6.48) | ($5.33) | ($3.38) | ($3.69) | ($1.79) | ($1.54) | ($3.67) |
| Projected Average Residential Bill per MWh | $119.58 | $117.45 | $118.60 | $120.55 | $120.24 | $122.14 | $122.39 | $120.26 |
| Current Average Residential Bill per MWh | $122.08 | $119.58 | $117.45 | $118.60 | $120.55 | $120.24 | $122.14 | $122.39 |
| Annual Adjustment per MWh | ($2.50) | ($2.13) | $1.15 | $1.95 | ($0.31) | $1.90 | $0.25 | ($2.13) |
| Projected Average Residential Bill per MWh | $119.58 | $117.45 | $118.60 | $120.55 | $120.24 | $122.14 | $122.39 | $120.26 |
| Estimated Average Residential Bill - Existing PP, | $123.93 * | $128.25 | $130.48 | $132.58 | $132.94 | $133.30 | $135.63 | $130.89 |
| Estimated Average Total Cost per Retail MWH | $126.27 | $130.59 | $132.82 | $134.92 | $133.28 | $135.64 | $137.97 | $133.23 |

* Without reduction from flow-back of surplus effective September 1, 2015.


City of Vero Beach Electric System
Average Retail Cost Projections FY 2016 - FY 2023
$140.00
$135.00
$130.00
$125.00
$120.00
$115.00
$110.00
$105.00
$100.00
FY 2016
FY 2017
FY 2018
FY 2019
FY 2020
FY 2021
FY 2022
FY 2023
TOTAL RETAIL COST PER MWH W/O RATE STAB
TOTAL RETAIL COST PER MWH WITH RATE STAB
TOTAL RETAIL COST PER MWH EXISTING OUC

**Orlando Utilities Commission Discussion Points in**
**Response to City of Vero Beach Request for Modification to PPA**
**August 13, 2015**

| | |
|---|---|
| **Source of Capacity/Energy:** | Remains as OUC system sale, for both the Base Capacity and the Peaking Capacity. |
| **Term:** | Base Capacity: Beginning on the Amendment Effective Date and continuing through December 31, 2023.<br><br>Peaking Capacity: Beginning upon the Amendment Effective Date and continuing through December 31, 2023. |
| **Contract Capacity:** | Base Capacity: 85 MW minimum take requirement, with the capacity calculated as is currently provided in the PPA (adjusted by replacing the capacity for the Vero combined cycle generation with the Peaking Capacity in this term sheet) except that the capacity shall be 84 MW for the period October 1, 2015 through December 31, 2015. If Vero's actual peak load exceeds the forecasted peak, OUC will charge Vero for the MW amount in excess of the forecasted peak times the daily Demand Charge as agreed in the Original Agreement subject to transmission availability and OUC being able to obtain such capacity from its own resources or through commercially reasonable efforts from the electric energy market. If capacity and energy has to be purchased from the electric energy market to serve Vero's deficiency and the cost is higher than the Demand Charge in the Original Agreement then Vero will pay the actual cost incurred by OUC.<br>If Vero's actual peak load is within the forecasted peak load for such year and Vero is capacity deficient due to loss of Generation Entitlements, OUC will make commercially reasonable efforts to replace such deficient capacity at actual cost.<br><br>Peaking Capacity: 54 MW of peaking capacity based on a heat rate of 11,500 Btu/KWH.<br>If the FPL transmission study approves any transmission capacity less than the 54 MW's, OUC will supply such reduced capacity until the earlier of when FPL approves the full 54 MW or June 30, 2016 and Vero is obligated to request transmission service on a monthly basis for the difference between 54 MW and the capacity approved by FPL. If such reduced peaking capacity continues after June 30, 2016, OUC will re-calculate the Peaking Demand Charge to reflect the equivalent Demand Revenues as if they were supplying the 54 MW's of Peaking. |
| **Capacity Charges** | See Attachment A |
| **Energy Charge** | Base Energy Charge: Calculated as is currently in the PPA<br><br>Peaking Energy Charge:<br><br>The Hourly Energy Rate ($/MWH) = [(Index + $0.78) * 11.5] + $5/MWH |

| | |
|---|---|
| | VOM<br><br>Index = [Florida Zone 3 midpoint as posted in Platt's Gas Daily under Louisiana onshore-South divided by (1- FGT Fuel Surcharge effective for that month in the Delivery Period)] + FGT's FTS-1 Usage Rate effective for that month in the Delivery Period |
| **OUC Transmission Charge** | Base Capacity: Included in the Demand Charge.<br><br>Peaking Capacity: Included in the Demand Charge.<br><br>Replacement Capacity for Deficiencies: Current OATT rate at the time of purchase. |
| **Delivery Point for Capacity/Energy** | Same as in PPA currently for both Base Capacity and Peaking Capacity (OUC-FPL interconnection). Replacement Capacity for Deficiencies will be as arranged. |
| **Conditions of OUC Offer** | 1) Vero to retire the Vero Power Plant upon completion of any applicable transmission reliability upgrades, with the plant capacity removed from the PPA as an available resource for Vero as of the Amendment Effective Date.<br><br>2) Current natural gas transportation rights assigned to OUC and would remain with OUC after the PPA terminates.<br><br>3) Vero shall obtain network transmission service from FPL for Peaking Capacity from the Delivery Point to the load.<br><br>4) OUC shall obtain firm point to point transmission service over the OUC transmission system for the Peaking Capacity to the Delivery Point.<br><br>5) Subject to negotiation and agreement on definitive contract terms and approval by the Board of OUC and the City of Vero Beach City Council. |

Attachment A

| Period | Base PPA Demand Charge $/MW-Month * | Peaking PPA Demand Charge $/MW-Month * |
|---|---|---|
| October 1, 2015 – December 31, 2016 | $8,331 | $5,566 |
| January 1, 2017 – December 31, 2017 | $8,851 | $5,836 |
| January 1, 2018 – December 31, 2018 | $10,885 | $6,105 |
| January 1, 2019 – December 31, 2019 | $10,930 | $6,625 |
| January 1, 2020 – December 31, 2020 | $10,951 | $7,146 |
| January 1, 2021 – December 31, 2021 | $10,986 | $7,666 |
| January 1, 2022 – December 31, 2022 | $11,007 | $8,187 |
| January 1, 2023 – December 31, 2023 | $11,038 | $8,708 |

* Please note that the Demand Charges above is a fixed charge that is inclusive of the firm point to point transmission charges on OUC's system. Each month demand cost will be calculated by multiplying the annual Supplemental Wholesale Electric Capacity(Base PPA) and the 54 MW's of Peaking PPA by the respective Demand Charge for such month.

APPENDIX B

MANAGEMENT OF ELECTRIC ENERGY AND CAPACITY FROM THE VERO BEACH POWER PLANT

Section 1 Monthly Demand Charge Rates

The Monthly Demand Charge Rates to Vero Beach under this First Amended Agreement are indicated in Table 1 below shall be based on the following:

| Period | Base Capacity Demand Charge (85 MW or Greater) $/MW-Month * | Peaking Capacity Demand Charge $/MW-Month * |
|---|---|---|
| October 1, 2015 – December 31, 2016 | $10,978 | $5,566 |
| January 1, 2017 – December 31, 2017 | $10,192 | $5,855 |
| January 1, 2018 – December 31, 2018 | $10,275 | $6,145 |
| January 1, 2019 – December 31, 2019 | $9,705 | $6,686 |
| January 1, 2020 – December 31, 2020 | $10,946 | $7,229 |
| January 1, 2021 – December 31, 2021 | $9,884 | $7,772 |
| January 1, 2022 – December 31, 2022 | $8,286 | $8,316 |
| January 1, 2023 – December 31, 2023 | $11,030 | $8,861 |

*If the Supplemental Wholesale Base Electric Capacity calculated in accordance with the terms of this First Amended Agreement, falls below 85 MW for any year, the Base Capacity Demand Charge for that month shall be re-calculated using the methodology set forth in Article 15, Section 15.11.3 of this First Amended Agreement.

If Vero Beach's actual maximum hourly load in any month results in a Capacity Deficiency, then the Monthly Demand Charge Rate applicable to the MW by which Vero Beach is Capacity Deficient, for that month, shall be as set forth in the following Table 2.

Table 2 – Monthly Demand Charge Rate (For Capacity Deficiency)

| **Year** | Demand $/MW-month |
|---|---|
| **2010** | $10,750 |
| **2011** | $11,202 |

| | |
|---|---|
| **2012** | $11,672 |
| **2013** | $12,162 |
| **2014** | $12,673 |
| **2015** | $13,205 |
| **2016** | $13,760 |
| **2017** | $14,338 |
| **2018** | $14,950 |
| **2019** | $14,950 |
| **2020** | $14,950 |
| **2021** | $14,950 |
| **2022** | $14,950 |
| **2023** | $14,950 |
| | |
| | |
| | |
| | |
| | |
| | |

(a) The Monthly Demand Charge Rate applicable to Supplemental Wholesale Base Electric Capacity shall be subject to a one-time adjustment during the Term of this First Amended Agreement by OUC if OUC in its reasonable judgment determines that the Monthly Demand Rate is resulting in an inequitable burden on the retail customers of OUC. If OUC makes a determination that such an inequitable burden exists, OUC shall provide notice two years prior to the proposed adjustment date but in no event earlier than January 1, 2018 that the adjustment will be necessary and shall indicate the amount by which the Monthly Demand Rate must be increased to eliminate the subsidy. Vero Beach in its sole discretion may choose to reject the adjusted Monthly Demand Rate and terminate this First Amended Agreement upon one (1) years' prior written notice prior to the proposed adjustment date. Nothing in this Subsection (a) will allow OUC to make any such adjustment solely to take advantage of market opportunities. Such adjustment shall only consist of the amount of revenue required to bring the OUC retail customers to a neutral cost position for the remaining term of this First Amended Agreement.

Section 2 <u>Monthly Energy Charge Rates</u>

OUC's energy rate formula applicable to Supplemental Wholesale Base Electric Energy is as follows:

Energy Price = Forecasted Annual Retail Fuel and Fuel-Related Requirements (expense) including Fuel and Fuel Related Requirements (expense) to serve the energy requirements for the Supplemental Wholesale Base Electric Energy provided to Vero Beach

# Vero Beach Power Supply Costs Recommendation & Summary

- <u>Recommendation</u>:

- Accept New OUC PPA with "Levelized" or "Levelizing" Capacity Charges
- - Substantial Cost Savings $119.7MM vs. Existing PPA
- - Substantial Rate Reductions vs. Existing PPA
  - $2.50($4.35 in 2016), $10.80 in 2017, $11.88 in 2019, $12.03 in 2020
- - More Stable Rate Trajectory, 2016-2023
  - Projected Rates in 2016 = $119.58, 2023 = $120.26 (+ 0.5%)