



# Solar FIT Update and 2014 Pricing Options

# Agenda

- Solar FIT status
- Options for Solar FIT Program in 2014
- Costs and bill implications



# Why the Solar FIT?

- Accelerate deployment of solar in Gainesville and allow opportunity for many participants
- Encourage early private investment/ innovation
- Promote job growth
- Achieve renewable energy/ carbon reduction goals
- Balance solar PV as a good long-term (20 year) investment for both investors and our customers



# Solar FIT Program Highlights

- Over 14 MW installed through Sept 2013 – additional 4.4 MW currently under construction
- Hundreds of participants in program
- Estimated over \$60 million of capital investment by FIT project owners
- Steadily offer decreased annual solar rate paid while still maintaining local demand and interest



# What Has Changed...

- Solar costs have come down significantly but remain more expensive than GRU's traditional generation
- GRU electric rates are not competitive and adding more solar puts more upward pressure on electric rates
- GRU has excess generating capacity during the intermediate planning horizon
- Recently approved changes to the net metering policy should keep a high level of interest/ incentive for customers that want to offset their GRU electric usage and can afford the capital cost

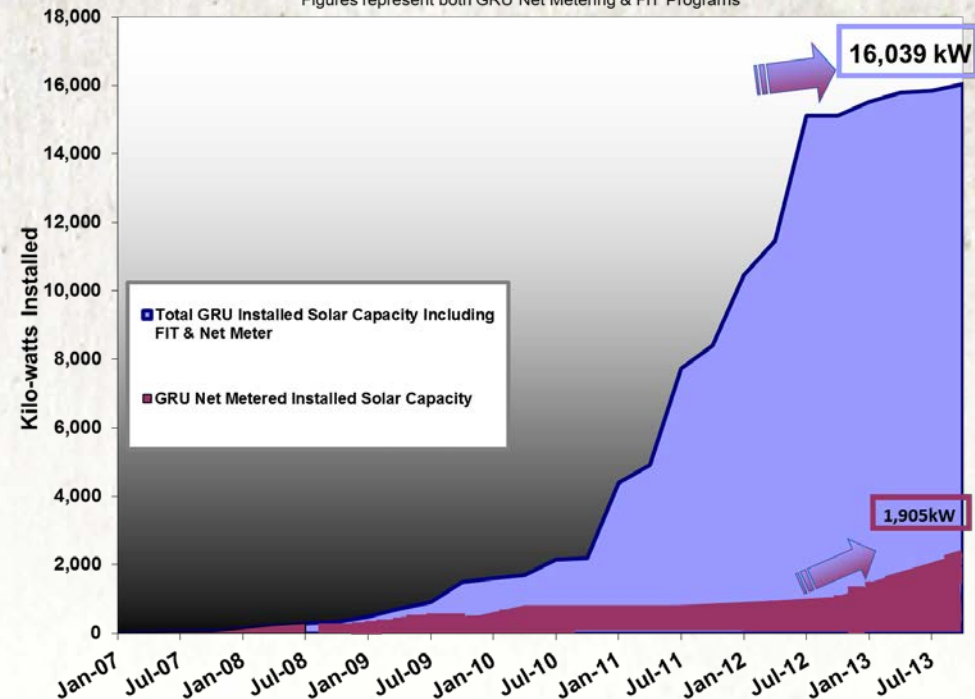


# Solar...

- Policies developed to lead the market
- Programs implemented successfully
- Solar markets are changing and costs have declined; as designed GRU has paid lower rate over time

## GRU Installed Solar Growth

Figures represent both GRU Net Metering & FIT Programs



# Three classes of FIT projects

- **Class 1:** Small rooftop and ground mount 10 kW or less
- **Class 2:** Large rooftop greater than 10 kW and less than 300 kW; small ground mount 10 to 25 kW
- **Class 3:** Large ground mount greater than 25 kW



# GRU Solar Installed Cost Data

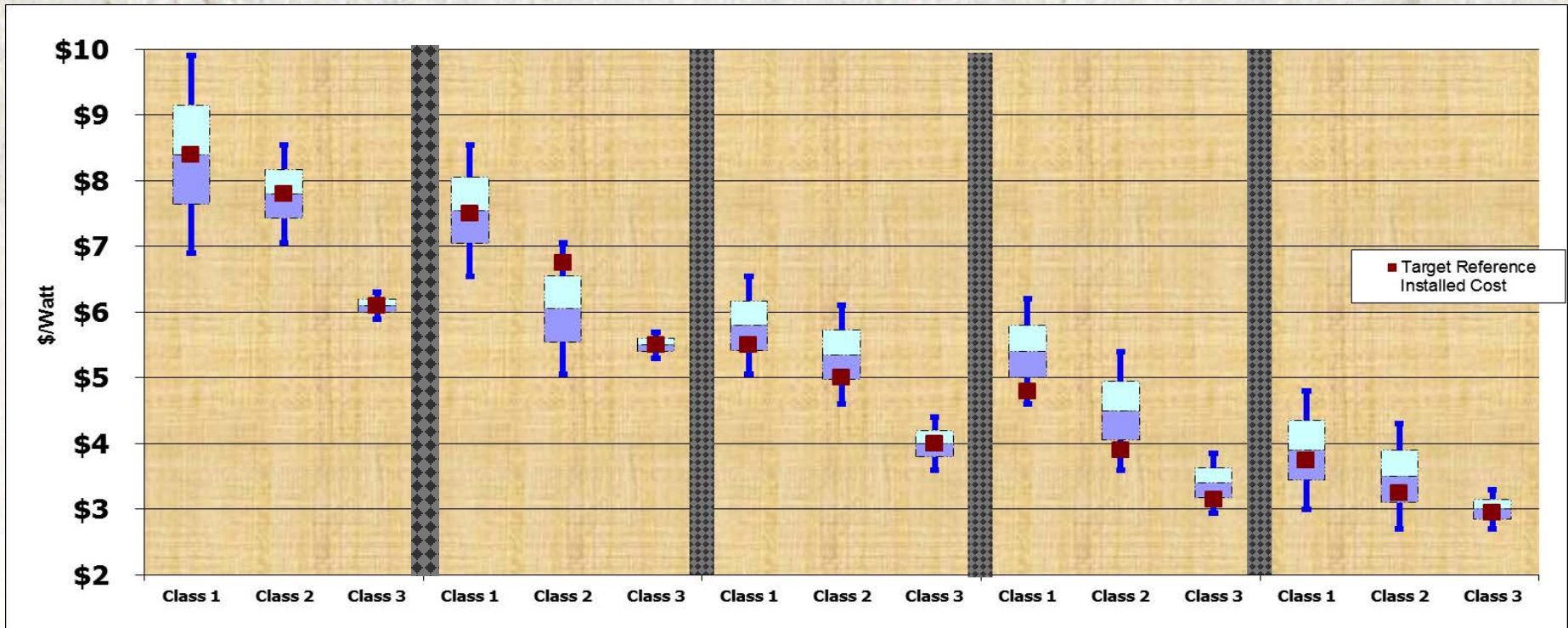
2008 & 2009

2010

2011

2012

2013





# 2014 Proposed FIT Pricing

| Contract Entered into Under This Policy During Calendar Year | Fixed Rate per kWh Applied Uniformly From the Date of Installation Through December 31, | Fixed Rate \$/kWh Over Life of Contract |               |               | Reference Installed Solar Cost per Watt |               |               |
|--|---|---|---------------|---------------|---|---------------|---------------|
|  |   | Class 1                                 | Class 2       | Class 3       | Class 1                                 | Class 2       | Class 3       |
| 2009   | 2029  | N/A                                     | \$0.32        | \$0.26        | \$7.50                                  | \$7.50        | \$6.10        |
| 2010   | 2030  | N/A                                     | \$0.32        | \$0.26        | \$7.50                                  | \$7.50        | \$6.10        |
| 2011   | 2031  | \$0.32                                  | \$0.29        | \$0.24        | \$7.50                                  | \$6.75        | \$5.50        |
| 2012   | 2032  | \$0.24                                  | \$0.22        | \$0.19        | \$5.50                                  | \$5.00        | \$4.00        |
| 2013   | 2033  | \$0.21                                  | \$0.18        | \$0.15        | \$4.80                                  | \$3.90        | \$3.15        |
| <b>2014</b>  | <b>2034</b>   | <b>\$0.18</b>                           | <b>\$0.16</b> | <b>\$0.14</b> | <b>\$3.75</b>                           | <b>\$3.25</b> | <b>\$2.95</b> |



# Solar FIT Effect on Rates

- Solar FIT payments are classified as purchased power fuel expenses
- Program cost impact is cumulative
  - Premiums paid are compounded as annual solar generation increases (although at decreasing levels due to yearly payment decreases and projections of increases in traditional fossil fuels over time); also assumes GRU will eventually need new generation capacity addition within next 10-15 years
- The 4 MW cap limits impact on rates



# 2014 FIT Program Options

- **Option 1 (4.5 MW)**: Offer full 4 MW + .5 MW rollover at recommended 2014 pricing
  - 2.65 MW capacity in existing queue
  - 1.35 MW capacity expected to be available for 2014 open solicitation
  - .5 MW estimated capacity not constructed in 2013
- **Option 2 (4.0 MW)** : Offer full 4MW at recommended 2014 pricing
  - 2.65 MW capacity in existing queue
  - 1.35 MW capacity expected to be available for 2014 open solicitation
- **Option 3 (2.65 MW)**: Offer only existing queue capacity at recommended 2014 Pricing
  - 2.65 MW capacity potential from existing queue
  - 0.00 MW capacity from 2014 open solicitation
- **Option 4 (0 MW)**: Offer no capacity in 2014
  - 0.00 MW capacity from existing queue
  - 0.00 MW capacity from open solicitation



# Historical FIT Purchased Power Costs

| Calendar YR      | FIT Program Capacity (MW) | FIT Purchased Power (MWh) | % FIT of NEL | FIT Purchased Power (\$) | % FIT of Total Fuel & Purchased Power Costs | FIT Purchased Power (\$/MWh) | Estimated Avoided Fuel Cost from FIT* (\$) | Purchased Power Costs from FIT (\$) |
|------------------|---------------------------|---------------------------|--------------|--------------------------|---|------------------------------|--|-------------------------------------|
| 2009/2010        | 6.66                      | 1,650                     | 0.0%         | \$513,000                | <b>0.2%</b>                                 | \$311                        | (\$69,000)                                 | <b>\$444,000</b>                    |
| 2011             | 6.18                      | 7,269                     | 0.4%         | \$2,230,000              | <b>2.0%</b>                                 | \$307                        | (\$275,000)                                | <b>\$1,955,000</b>                  |
| 2012             | 1.24                      | 15,839                    | 0.8%         | \$4,580,000              | <b>4.6%</b>                                 | \$289                        | (\$432,000)                                | <b>\$4,148,000</b>                  |
| 2013 (Estimated) | 4.47 <sup>①</sup>         | 20,100                    | 1.1%         | \$5,576,000              | <b>5.7%</b>                                 | \$277                        | (\$681,000)                                | <b>\$4,895,000</b>                  |
| Total 2009-2013  | 18.55                     | 44,858                    | 0.4%         | \$12,899,000             | <b>2.3%</b>                                 | \$287                        | (\$1,457,000)                              | <b>\$11,442,000</b>                 |

\* Avoided Fuel Costs estimated on average annual commodity natural gas costs from GRU Combined Cycle Unit with average net heat rate of 8.8 mmbtu/ MWh.

-2009:  $\$4.85 * 8.8 = \$42.68/\text{MWh}$

-2010:  $\$4.60 * 8.8 = \$40.48/\text{MWh}$

-2011:  $\$4.30 * 8.8 = \$37.84/\text{MWh}$

-2012:  $\$3.10 * 8.8 = \$27.28$

-2013:  $\$3.85 * 8.8 = \$33.88$

-2014:  $\$4.00 * 8.8 = \$35.20$

① approx 0.50 MW dropped from 2013 capacity

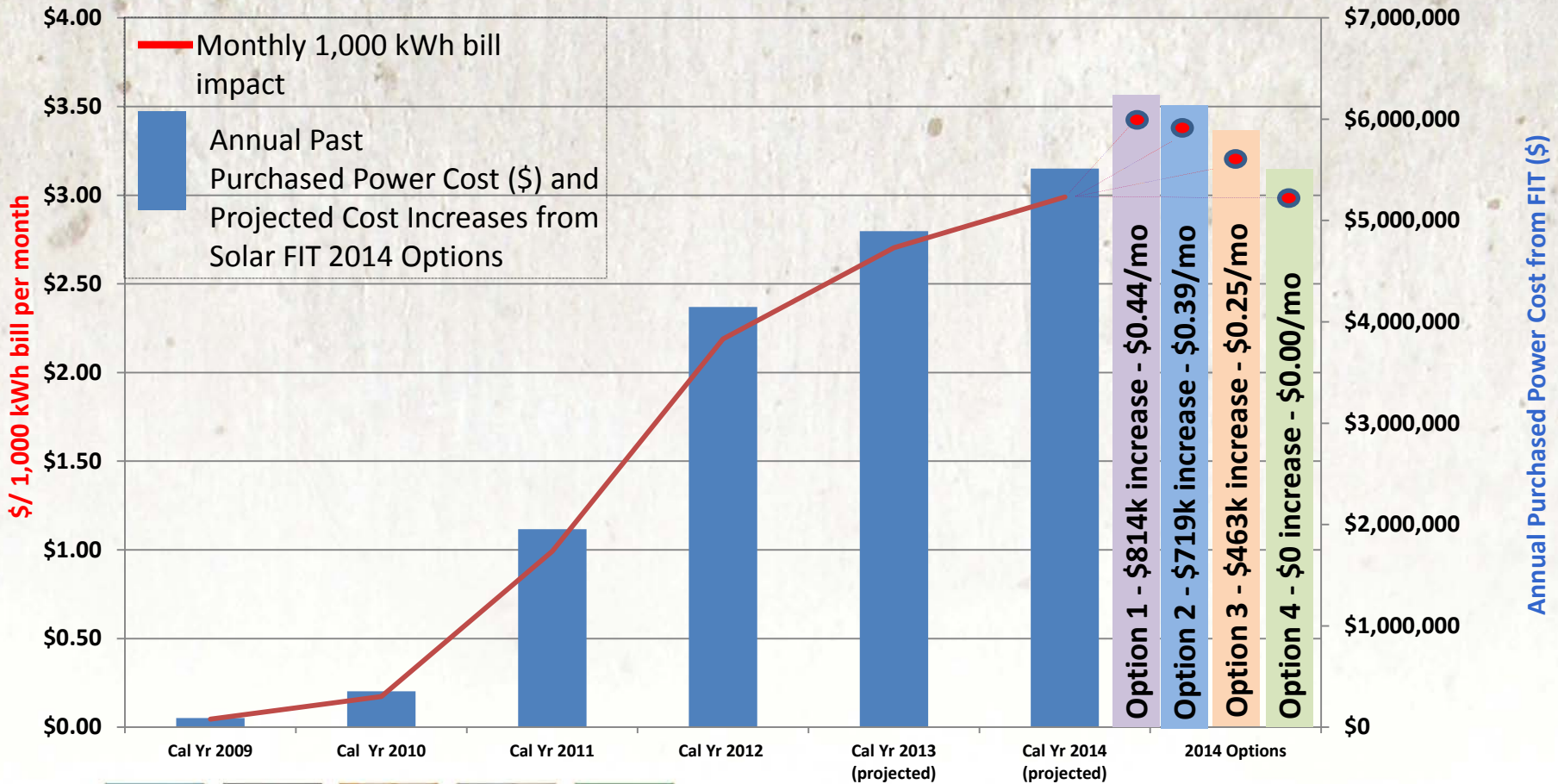


# Estimated Cost Impact of 2014 FIT Program - Four Variations

| Calendar YR                           | FIT Program Capacity (MW) | FIT Purchased Power (MWh) | FIT Purchased Power (\$) | FIT Purchased Power (\$/MWh) | Estimated Avoided Fuel Cost from FIT* (\$) | Estimated Increased Purchased Power Costs from 2014 FIT Capacity Options (YR 1) | Estimated Increased Purchased Power Costs from 2014 FIT Capacity Options (20 YRS) |
|---------------------------------------|---------------------------|---------------------------|--------------------------|------------------------------|--|---|---|
| 2009-2013 Previous Program Commitment | 18.55                     | 25,200                    | \$6,400,000              | \$254                        | (\$887,000)                                | <b>\$5,513,000 (Prior Commitment)</b>   | <b>\$74M-\$84M (Prior Commitment)</b>   |
| <b>2014 Option 1</b>                  | 4.5                       | 6,701                     | \$1,050,000              | \$157 (Blended Avg)          | (\$236,000)                                | <b>\$814,000</b>  | <b>\$7.5M-\$10.5M</b>   |
| <b>2014 Option 2</b>                  | 4                         | 5,956                     | \$929,000                | \$156 (Blended Avg)          | (\$210,000)                                | <b>\$719,000</b>  | <b>\$6.7M-\$9.2M</b>  |
| <b>2014 Option 3</b>                  | 2.65                      | 3,946                     | \$602,000                | \$152 (Blended Avg)          | (\$139,000)                                | <b>\$463,000</b>  | <b>\$4.2-\$5.8M</b>   |
| <b>2014 Option 4</b>                  | 0                         | 0                         | \$0                      | \$0                          | \$0  | <b>\$0</b>  | <b>\$0</b>  |



# Solar FIT Cost Impact per Monthly 1,000 kWh Bill & Annual Increased Purchased Power Costs



# Recommendation

- The City Commission determine capacity allocation for 2014, and as needed, direct the City Attorney to draft, and City Clerk to advertise, any rate changes necessary to implement that option.

