

capital market outlook, future capital funding needs, rating agency considerations, and counterparty credit profiles.

### Cash Balance Policy

GRU's staff has developed, in conjunction with their Financial Advisor, a Cash Balance Policy. The purpose of this policy is to review the economic and operational risks potentially facing GRU, and to identify an appropriate level of cash to reserve against these particular risks. The Cash Balance Policy will provide GRU with a recommended level of cash to reserve against such risks and also establish a higher and lower limit (+/- 15 days of cash) for this recommended Cash Balance Policy. This range allows for flexibility to meet these targets based on the financial operations of the Utility. The Cash Balance Policy is expected to be reviewed by the Utility Advisory Board and implemented by the City Commission in February 2019.

### Competition

In recent years, energy-related enterprises have become more influenced by the competitive pressures of an increasingly deregulated industry, especially the wholesale power market. The Florida retail electric system is under no immediate threat of market loss due to the current laws and regulations governing the supply of electricity in Florida, which presently prohibit any form of retail competition. The System's other enterprises currently are operating in competitive environments of one form or another. These competitive environments include the natural gas system by-pass and competition against other LP distributors and alternative fuel types, private wells, septic tanks and privately owned water and wastewater systems, and the entire telecommunications arena for GRUCom.

Management's response to the increasing competition in the wholesale power market (including interchange and economy sales), and the corollary open access changes in the electric transmission network has been to stay involved and form strategic alliances. These alliances fall into two categories, joint ventures and industry associations. The most significant joint venture the System is currently involved in is TEA, a Georgia nonprofit corporation established for power marketing, fuels procurement, and financial hedging and risk management (see "– The Electric System – Energy Sales – *The Energy Authority*" above). The System's staff is very involved with the American Public Power Association, the Florida Municipal Electric Association ("FMEA"), and FMPA. These industry associations have proven to be a powerful way to stay informed, plan, and help shape federal and state policies to protect customer interests and assure the fair treatment of municipal systems.

The natural gas system has been subjected to competition due to the deregulation that has occurred in that industry since the early 1990's. A consequence of this deregulation for municipal gas utilities in Florida is that "end-users" are allowed to secure and purchase their gas requirements directly from gas producers, thereby "bypassing" the monopoly producer/pipeline systems. The System's rate structures largely avoid this concern. The System passes fuel costs directly through its purchased gas adjustment, and rates applicable for transportation of system by-pass are allowed to earn a return on distribution infrastructure, which is the sole basis for the System's revenue requirements. Thus, a customer electing to bypass the System simply substitutes its ability to buy gas for the System's ability to buy gas. The sole example of bypass experienced by the System to date was in the case of service to Duke's cogeneration plant at the University of Florida where the amount of non-fuel revenue realized from the customer was virtually unchanged by its decision to contract for its own gas supply. Several strategies are being implemented to gain a competitive advantage for the System in natural gas sales growth. Two very

significant competitive advantages are the System's position of having among the lowest gas rates in the State, and the environmental benefits of natural gas for certain appliance end uses. Appliance rebates and distribution system construction credits are employed to encourage and stimulate customer growth. In addition, temporary LP distribution systems may be constructed to encourage and rapidly accommodate the acquisition of a customer base that is just beyond an economic expansion of the natural gas distribution system. These LP systems and customer appliances are converted to natural gas when gas pipeline extensions become feasible. Rebates are also used to assist customers in overcoming the short-term economic obstacles of converting existing electric appliances to natural gas in order to allow them to obtain long-term financial, convenience, and environmental benefits, both inside and outside the System's electrical service territory. The System has franchises to provide retail natural gas services to several nearby cities in the County. See "-- The Natural Gas System – Service Area" herein for a discussion of the status of the System's franchise agreement to provide natural gas service in the County.

Private wells, septic tanks, and privately owned water utilities are the traditional alternatives for water and wastewater utility services and serve small populations where service from centralized facilities is less practical or desirable. Comprehensive planning in the City and the surrounding unincorporated areas strongly discourages urban sprawl, and the System's incumbent status, competitive rates and environmental record have resulted in a very favorable competitive position, with sustained high levels of market capture from population growth.

GRUCom operates in a fully deregulated and competitive telecommunications environment. Management has taken a targeted approach to this enterprise, seeking opportunities that maximize use of System assets, which include widely deployed fiber optic communication facilities and existing elevated antenna structures (communications towers and water tanks), while also taking advantage of its professional employee expertise in areas of utility and public safety operations, information technology and its close working relationships within the local businesses community and the commercial property development industry. GRUCom primarily engages its customer markets as a business-to-business enterprise taking a consultative sales approach to solicit its services to private companies, governments, telecommunications carriers, major institutions and other similar commercial users of high volume voice, data and Internet bandwidth applications.

GRUCom also provides data center co-location services within its telecommunications central office building providing leased access to conditioned space, redundant power and building systems and highly available communications facilities. Tenants include private businesses and government agencies co-located for the purpose of off-site data back-up and storage, on-line hosting service providers co-located for the purpose of accessing reliable high-capacity Internet connectivity, and other Internet and telecommunications service providers who gain access to GRUCom's excellent local fiber transmission services at preferential rates available only to co-located resellers.

The System currently is pursuing opportunities related to several large development projects occurring in the service territory to diversify revenues while investing in energy efficient systems, as was successfully pursued in the South Energy Center. Due to the existing knowledge, experience, infrastructure and resources within the System's core utilities, it has a competitive advantage as it focuses on chilled water services, and emergency backup power opportunities.

Chilled water provides an additional revenue source, while providing a more efficient, cost effective cooling system that is consistent with environmental stewardship. The System's strategy for chilled water service does not depend on extensive distribution systems. Instead, each chilled water and

generation facility is located near the premises of the development. Additionally, the chilled water systems are modular and can be expanded incrementally as the customer base grows. This strategy will limit the System's exposure for stranded assets or investing in infrastructure without having full subscription to the available service, especially at a time when development has slowed significantly.

The Innovation District is an area of approximately 80 acres between the University of Florida's campus and downtown Gainesville that has been master planned and is being transformed into an area of high urban density to house and support scientific research and development and technology based businesses as well as residential, retail, and hospitality development. The Innovation District is currently a mixture of low density office, commercial and residential uses, and includes the former Shands at Alachua General Hospital ("AGH") site. The former Shands at AGH was demolished and the entire site is now called Innovation Square. The University of Florida has constructed a three-story building known as Innovation Hub on the site and has another building known as Innovation Hub Phase II under construction. Innovation Square is a research oriented development that forms the nucleus of the Innovation District. The Innovation District is projected to be comprised of approximately 3.7 million square feet of lab, business, residential, commercial, and institutional space. The System will have the opportunity to provide commercial power, emergency power, natural gas, water, wastewater, reclaimed water, chilled water, and telecommunication services to the Innovation District. The Innovation District is projected to constitute significant utility loads, including an electric load of more than 10 MW.

Redevelopment of the Innovation District is an ambitious undertaking and has required that basic utility infrastructure be upgraded to support the dense urban development that is envisioned. Redevelopment in and around downtown Gainesville, particularly when coupled with the University of Florida's international reputation as a premier scientific research institution, presents tremendous opportunities for economic growth.

In order to help facilitate development in the Innovation District the System has designated an Innovation District "Infrastructure Improvement Area" within which the System is constructing water distribution system and wastewater collection system capacity improvements according to a master plan. The System is charging an additional fee to new development projects within the area to recover its costs. This mechanism allows critical capacity improvements to be constructed as efficiently as possible. For more information, see "*-- Rates—Water and Wastewater System—Infrastructure Improvement Area*" above.

The System owns and operates a recently constructed facility, known as the Innovation Energy Center, dedicated to serve Innovation Square. The facility provides chilled water and emergency power for the Innovation Hub building and future buildings being planned for the Innovation Square development, under an exclusive provider contract with the University of Florida Development Corporation. The modular facility has a current capacity of 870 tons of chilled water with planned expansion to 7,000 tons as additional customers are connected to the facility.

Currently, there is no initiative and little indication of interest in pursuing retail electric deregulation either in Florida or nationwide. Management has a renewed focus on maintaining and improving the projected levels of Net Revenues, debt service coverage, and the overall financial strength of the System. To be successful at this, the System will require many of the same goals and targets necessary to be prepared for retail competition. These goals and targets relate to enhancing customer loyalty and satisfaction by providing safe and reliable utility services at competitive prices.

Ratings Triggers and Other Factors That Could Affect the System's Liquidity, Results of Operations or Financial Condition

The System has entered into certain agreements that contain provisions giving counterparties certain rights and options in the event of a downgrade in the System's credit ratings below specified levels and/or the occurrence of certain other events or circumstances. Given its current levels of ratings, Management does not believe that the rating and other credit-related triggers contained in any of its existing agreements will have a material adverse effect on the System's liquidity, results of operations or financial condition. However, the System's ratings reflect the views of the rating agencies and not of the System, and therefore, the System cannot give any assurance that its ratings will be maintained at current levels for any period of time.

Liquidity Support for the System's Variable Rate Bonds

The System has entered into separate standby bond purchase agreements with certain commercial banks in order to provide liquidity support in connection with tenders for purchase of the 2005 Series C Bonds, the 2006 Series A Bonds, the 2007 Series A Bonds, the 2008 Series B Bonds and the 2012 Series B Bonds (collectively the "Liquidity Supported Bonds"). The following details the Liquidity Supported Bonds, the bank providing the liquidity support and the termination date of the current facility:

<u>Series</u>	<u>Bank</u>	<u>Expiration</u>
2005C	Landesbank Hessen Thüringen Girozentrale	November 24, 2020
2006A	Landesbank Hessen Thüringen Girozentrale	November 24, 2020
2007A	State Street Bank and Trust Company	April 1, 2021
2008B	Barclays Bank PLC	June 29, 2020
2012B	Citibank, N.A.	June 29, 2020

The standby bond purchase agreements relating to the Liquidity Supported Bonds provide that any Liquidity Supported Bond that is purchased by the applicable bank pursuant to its standby bond purchase agreement may be tendered or deemed tendered to the System for payment upon the occurrence of certain "events of default" with respect to the System under such standby bond purchase agreement. Upon any such tender or deemed tender, the Liquidity Supported Bond so tendered or deemed tendered will be due and payable immediately.

The standby bond purchase agreements relating to the 2005 Series C Bonds and the 2006 Series A Bonds, provides that it is an "event of default" on the part of the System thereunder if any of the ratings fall below "A2" (or its equivalent) by Moody's Investors Service, Inc. ("Moody's") and below "A" (or its equivalent) by S&P Global Inc. ("S&P"), or below "A" (or its equivalent) by Fitch Ratings, Inc. ("Fitch") or is withdrawn or suspended. The standby bond purchase agreement relating to the 2007 Series A Bonds provides that it is an "event of default" on the part of the System thereunder if the ratings on the 2007 Series A Bonds, without taking into account third-party credit enhancement, fall below "Baa3" by Moody's and "BBB-" by S&P or are withdrawn or suspended. The standby bond purchase agreement relating to the 2008 Series B Bonds provides that it is an "event of default" on the part of the System thereunder if any rating on the 2008 Series B Bonds or any Parity Debt, without taking into account third-party credit enhancement, falls below "Baa3" by Moody's, "BBB-" by S&P or "BBB-" by Fitch or is withdrawn or suspended (other than any withdrawal or suspension that is taken for non-credit related reasons). The standby bond purchase agreement relating to the 2012 Series B Bonds provides that it is an "event of default" on the part of the

System thereunder if the ratings on the 2012 Series B Bonds, without giving effect to any third-party credit enhancement, fall below "Baa3" by Moody's, "BBB-" by S&P or "BBB-" by Fitch or is withdrawn or suspended (other than any withdrawal or suspension that is taken for non-credit related reasons). Any Liquidity Supported Bond purchased by the applicable bank under a standby bond purchase agreement will bear interest at the rate per annum set forth in such standby bond purchase agreement, which rate may be significantly higher than market rates of interest borne by such Bonds when held by investors.

Additionally, the City entered into a continuing covenant agreements relating to the 2017 Series B Bonds and the 2017 Series C Bonds with Wells Fargo Bank, National Association and Bank of America, N.A, respectively. The continuing covenant agreements relating to the 2017 Series B Bonds and the 2017 Series C Bonds provide that it is an "event of default" thereunder if any ratings to any Parity Debt (as defined in the respective continuing covenant agreement) (without taking into account third party credit enhancement) is withdrawn or suspended or reduced below "A2" (or its equivalent) by Moody's below "A" (or its equivalent) by S&P or by Fitch. It shall also be an "event of default" if each rating agency then rating Parity Debt shall have withdrawn or suspended its rating assigned to Parity Debt, in either case, for credit related reasons or such rating is reduced below investment grade.

#### Liquidity Support for the System's Commercial Paper Program

The System also has entered into separate credit agreements with certain commercial banks in order to provide liquidity support for the CP Notes. The CP Notes constitute Subordinated Indebtedness under the Resolution. If, on any date on which a CP Note of a particular series matures, the System is not able to issue additional CP Notes of such series to pay such maturing CP Note, subject to the satisfaction of certain conditions, the applicable bank is obligated to honor a drawing under its credit agreement in an amount sufficient to pay the principal of such maturing CP Note. The credit agreements for the Series C Notes and the Series D Notes currently have stated termination dates of November 30, 2021 and August 28, 2020, respectively, which dates are subject to extension in the sole discretion of the respective banks.

The credit agreements provide that, upon the occurrence and continuation of certain "tender events" on the part of the System thereunder, the banks may, among other things, (a) issue "No-Issuance Instructions" to the issuing agent for the CP Notes of the applicable series, instructing such paying agent not to issue any additional CP Notes of such series thereafter, (b) terminate the commitment and the applicable bank's obligation to make loans or (c) require immediate payment from the System for any outstanding principal and accrued interest due under the respective credit agreement.

With respect to the Series C Notes, among others, it is an immediate termination event under the related credit agreement if the ratings assigned to any of the System's Bonds fall below "Baa3" by Moody's, "BBB-" by S&P or "BBB-" by Fitch or are suspended or withdrawn for credit-related reasons.

With respect to the Series D Notes, among others, it is an immediate termination event under the related credit agreement if the ratings assigned to any of the System's Bonds fall below "Baa" by Moody's, "BBB-" by S&P or "BBB-" by Fitch or are suspended or withdrawn for credit-related reasons.

Any drawing made under a credit agreement bears interest at the rate per annum set forth in such credit agreement, which rate may be significantly higher than market rates of interest borne by the related CP Notes.

### Direct Placement Transactions

The City has entered into direct placement transactions with two different lenders under agreements with respect to the 2017 Series B Bonds and 2017 Series C Bonds. The current lenders are Wells Fargo Bank, N.A., for the 2017 Series B Bonds, and Bank of America, N.A., for the 2017 Series C Bonds.

For the 2017 Series B Bonds, the City has entered into a direct placement transaction with Wells Fargo, N.A, for a three year term maturing October 1, 2044 with put date on November 7, 2020. During the term of the transaction, the City will pay to the lender, a rate equal to 70% of the one-month LIBOR rate and an applicable spread of 35 basis points. Should the City's credit rating fall below "Aa3" from Moody's and/or 'AA-"from S&P, and/or "AA-"from Fitch, then the applicable spread will be increased by 15 bps with each notch drop. Additionally, a change in the corporate tax rate will cause a change in the applicable spread. As a result of the recent decrease in marginal corporate tax rate, the rate on the 2017 Series B Bonds was increased.

For the 2017 Series C Bonds, the City has entered into a direct placement transaction with Bank of America, N.A, for a three year term, maturing on October 1, 2047 with put date on November 7, 2020. During the term of the transaction, the City will pay to the lender, a rate equal to 70% of the one-month LIBOR rate and an applicable spread of 41 basis points. Should the City's credit rating fall below "Aa3" from Moody's and/or 'AA-"from S&P, and/or "AA-"from Fitch, then the applicable spread will be increased by 10 basis points with each notch drop. Additionally, a change in the corporate tax rate will cause a change in the applicable spread. As a result of the recent decrease in marginal corporate tax rate, the rate on the 2017 Series C Bonds was increased.

The City entered into a direct placement revolving line of credit transaction in a not to exceed amount of \$25 million with SunTrust with respect to the SunTrust Loan. It expires approximately three years from the date of issuance which expiration date is of \_\_\_\_\_, \_\_\_\_\_. During the term of the transaction, the City will pay the lender a rate equal to equal to 81% multiplied by the sum of the LIBOR Rate plus 1.85%, and subject to adjustment to reflect changes in the LIBOR Rate. Should the City's credit rating fall below "Baa1"/"BBB+" by all rating agencies then the interest rate may be increased.

### Interest Rate Swap Transactions

The City has entered into interest rate swap transactions with four different counterparties under interest rate swap master agreements with respect to the Refunded Bonds, the 2005 Series C Bonds, the 2006 Series A Bonds, the 2007 Series A Bonds, the 2008 Series B Bonds and the 2017 Series B Bonds. The current counterparties are Goldman Sachs Mitsui Marine Derivative Products, L.P., JPMorgan Chase Bank, N.A., Goldman Sachs Bank, USA and Citibank, N.A.

For the Refunded Bonds, the City entered into a floating-to-floating rate interest rate swap transaction (the "2005 Series B Swap Transaction") for a pro-rata portion of each of the maturities of the Refunded Bonds. During the term of the 2005 Series B Swap Transaction, the City will pay to the counterparty a rate equal to the SIFMA Municipal Swap Index and will receive from the counterparty a rate equal to 77.14% of the one-month LIBOR rate. GRU notes that the United Kingdom's Financial Conduct Authority ("FCA"), a regulator of financial services firms and financial markets in the U.K., has stated that they will plan for a phase out of LIBOR with a target end to the indices in 2021. The FCA has indicated they will no longer require the LIBOR indices be used after 2021, however LIBOR indices will not be prohibited from being used after 2021. GRU also notes that the International Swaps and Derivatives

Association ("ISDA") has not issued formal directives addressing the planned phase-out of LIBOR. As of the date of this publication, it is unclear what the overall impact will be on the expected phase out of the LIBOR indices and the resulting change due to the potential alternative reference rate. The initial notional amount of the 2005 Series B Swap Transaction was \$45,000,000, which corresponded to approximately 73.1% of the principal amount of each maturity of the Refunded Bonds. The effect of the 2005 Series B Swap Transaction was to synthetically convert the interest rate on such pro-rata portion of the Refunded Bonds from a taxable rate to a tax-exempt rate. The City has designated the 2005 Series B Swap Transaction as a "Qualified Hedging Transaction" within the meaning of the Resolution. The counterparty to the 2005 Series B Swap Transaction (Goldman Sachs Mitsui Marine Derivatives Products L.P.) currently has a counterparty risk rating of "Aa2" from Moody's and a counterparty credit rating of "AA-" from S&P. When entered into, the term of the 2005 Series B Swap Transaction was identical to the term of the Refunded Bonds, and the notional amount of the 2005 Series B Swap Transaction was scheduled to amortize at the same times and in the same amounts as the pro-rata portion of the Refunded Bonds. On August 2, 2012, \$31,560,000 of the 2005 Series B Bonds were redeemed with proceeds from the issuance of the City's 2012 Series B Bonds. As a result, the 2005 Series B Swap Transaction no longer served as a hedge against the Refunded Bonds. However, since the City had other taxable Bonds Outstanding, the City left the 2005 Series B Swap Transaction outstanding following the issuance of the 2012 Series B Bonds, as a partial hedge against the interest rate movements. It is anticipated that the remainder of the Refunded Bonds will be redeemed with proceeds of the 2019B Bonds. Since the City has other taxable Bonds Outstanding, the City will leave the 2005 Series B Swap Transaction outstanding following issuance of the 2019B Bonds, as a partial hedge against interest rate movements. The 2005 Series B Swap Transaction is subject to early termination by the City or the counterparty at certain times and under certain conditions. The currently scheduled termination of the 2005 Series B Swap Transaction is October 1, 2021.

The City has entered into a floating-to-fixed rate interest rate swap transaction (the "2005 Series C Swap Transaction"). During the term of the 2005 Series C Swap Transaction, the City will pay to the counterparty a fixed rate of 3.20% per annum and will receive from the counterparty a rate equal to 60.36% of the ten-year LIBOR swap rate. Initially, the term of the 2005 Series C Swap Transaction was identical to the term of the 2005 Series C Bonds, and the notional amount of the 2005 Series C Swap Transaction was scheduled to amortize at the same times and in the same amounts as the 2005 Series C Bonds. The effect of the 2005 Series C Swap Transaction was to synthetically fix the interest rate on the 2005 Series C Bonds at a rate of approximately 3.20% per annum, although the City bears basis risk which could result in a realized rate over time that may be lower or higher than the 3.20% rate. The counterparty (JPMorgan Chase Bank) currently has a counterparty credit rating of "Aa3" from Moody's and a counterparty credit rating of "A+" from S&P. The City has designated the 2005 Series C Swap Transaction as a "Qualified Hedging Transaction". On August 2, 2012, \$17,570,000 of the 2005 Series C Bonds were redeemed with proceeds from the issuance of the 2012 Series B Bonds. The City left the 2005 Series C Swap Transaction outstanding following the issuance of the 2012 Series B Bonds, as a partial hedge against the interest rate movements. It is expected that all or a portion of the outstanding 2005 Series C Bonds will be refunded with proceeds of the 2019C Bonds. The 2005 Series C Swap Transaction will remain outstanding following issuance of the 2019C Bonds as a partial hedge against interest movements. The 2005 Series C Swap Transaction is subject to early termination by the City or the counterparty at certain times and under certain conditions. The currently scheduled termination of the 2005 Series C Swap Transaction is October 1, 2026.

In September 2005, the City entered into a forward-starting floating-to-fixed rate interest rate swap transaction (as amended, the "2006 Series A Swap Transaction"). During the term of the 2006 Series A Swap Transaction, the City will pay to the counterparty a fixed rate of 3.224% per annum and will receive from the counterparty a rate equal to 68% of the ten-year LIBOR swap rate minus 36.5 basis points. The effect of

the 2006 Series A Swap Transaction was to synthetically fix the interest rate on the 2006 Series A Bonds at a rate of approximately 3.224% per annum, although the City bears basis risk, which could result in a realized rate over time that may be lower or higher than the 3.224% rate. Initially, the term of the 2006 Series A Swap Transaction was identical to the term of the 2006 Series A Bonds, and the notional amount of the 2006 Series A Swap Transaction was scheduled to amortize at the same times and in the same amounts as the 2006 Series A Bonds. The counterparty to the 2006 Series A Swap Transaction (Goldman Sachs Mitsui Marine Derivatives Products L.P.) currently has a counterparty risk rating of "Aa2" from Moody's and a counterparty credit rating of "AA-" from S&P. The City has designated the 2006 Series A Swap Transaction as a "Qualified Hedging Transaction". On August 2, 2012, \$25,930,000 of the 2006 Series A Bonds were redeemed with proceeds from the issuance of the 2012 Series B Bonds. The City left that portion of the 2006 Series A Swap Transaction outstanding as a partial hedge against the interest rate movements. It is expected that all or a portion of the outstanding 2006 Series A Bonds will be refunded with proceeds of the 2019C Bonds. The 2006 Series A Swap Transaction will remain outstanding following issuance of the 2019C Bonds as a partial hedge against interest movements. The 2006 Series A Swap Transaction is subject to early termination by the City or the counterparty at certain times and under certain conditions. The currently scheduled termination of the 2006 Series A Swap Transaction is October 1, 2026.

The City has entered into a floating-to-fixed rate interest rate swap transaction (the "2007 Series A Swap Transaction") with respect to the 2007 Series A Bonds. The term of the 2007 Series A Swap Transaction is identical to the term of the 2007 Series A Bonds, and the notional amount of the 2007 Series A Swap Transaction will amortize at the same times and in the same amounts as the 2007 Series A Bonds. During the term of the 2007 Series A Swap Transaction, the City will pay to the counterparty a fixed rate of 3.944% per annum and will receive from the counterparty a rate equal to the SIFMA Municipal Swap Index. The effect of the 2007 Series A Swap Transaction is to synthetically fix the interest rate on the 2007 Series A Bonds at a rate of approximately 3.944% per annum. The counterparty to the 2007 Series A Swap Transaction (Goldman Sachs Mitsui Marine Derivatives Products L.P.) currently has a counterparty risk rating of "Aa2" from Moody's and a financial program rating of "AA-" from S&P. The City has designated the 2007 Series A Swap Transaction as a "Qualified Hedging Transaction" within the meaning of the Resolution. It is expected that all or a portion of the outstanding 2007 Series A Bonds will be refunded with proceeds of the 2019C Bonds. The 2007 Series A Swap Transaction will remain outstanding following issuance of the 2019C Bonds as a partial hedge against interest movements. The 2007 Series A Swap Transaction is subject to early termination by the City or the counterparty at certain times and under certain conditions. The currently scheduled termination of the 2007 Series A Swap Transaction is October 1, 2036.

The City has entered into two floating-to-fixed rate interest rate swap transactions (the "2008 Series B Swap Transactions") with respect to the 2008 Series B Bonds. The terms of the 2008 Series B Swap Transactions are identical to the term of the 2008 Series B Bonds, and the notional amount of the 2008 Series B Swap Transactions will amortize at the same times and in the same amounts as the 2008 Series B Bonds. During the terms of the 2008 Series B Swap Transactions, the City will pay to the counterparty a fixed rate of 4.229% per annum and will receive from the counterparty a rate equal to the SIFMA Municipal Swap Index. The effect of the 2008 Series B Swap Transactions is to synthetically fix the interest rate on the 2008 Series B Bonds at a rate of approximately 4.229% per annum. The counterparty to the 2008 Series B Swap Transactions (JPMorgan Chase Bank) currently has a counterparty risk rating of "Aa3" from Moody's and a financial program rating of "A+" from S&P. The City has designated each of the 2008 Series B Swap Transactions as a "Qualified Hedging Transaction" within the meaning of the Resolution. It is expected that all or a portion of the outstanding 2008 Series B Bonds will be refunded with proceeds of the 2019C Bonds. The 2008 Series B Swap Transaction will remain outstanding following issuance of the 2019C Bonds as a partial hedge against interest movements. The 2008 Series B Swap Transactions are subject to early

termination by the City or the counterparty at certain times and under certain conditions. The currently scheduled termination of the 2008 Series B Swap Transaction is October 1, 2038.

As detailed above, the interest rates on the 2012 Series B Bonds are hedged, in part, by the 2005 Series B and C Swap Transaction as well as the 2006 Series A Swap Transaction. However, it is expected that all or a portion of the 2012 Series B Bonds will be refunded with proceeds of the 2019C Bonds.

The City has entered into a cancellable floating-to-fixed rate interest rate swap transaction (the "2017 Series B Swap Transaction") with respect to the 2017 Series B Bonds. The two counterparties for this swap transaction are Citigroup, N.A. and Goldman Sachs Bank USA. In the aggregate, terms of the 2017 Series B Swap Transactions are similar to the term of the 2017 Series B Bonds, and the notional amounts of the 2017 Series B Swap Transactions will amortize at the same times and in the same amounts as the 2017 Series B Bonds. Where Goldman Sachs Bank, USA is the counterparty, during the term of this 2017 Series B Swap Transaction, the City will pay a fixed rate per annum of 2.119% and GRU will receive from the counterparty a rate equal to 70% of 1 month LIBOR. The current notional amount with respect to Goldman Sachs Bank, USA is \$105,000,000. Where Citibank N.A. is the counterparty, during the term of this 2017 Series B Swap Transaction, the City will pay to Citibank, N.A., a fixed rate per annum of 2.11% and GRU will receive from the counterparty a rate equal to 70% of 1 month LIBOR. The effect of the 2017 Series B Swap Transaction is to synthetically fix the interest rate on the 2017 Series B Bonds. As discussed below, there is now a basis differential due to the rate changing on the 2017 Series B Bonds due to the decrease in marginal corporate tax rate. The City has designated the 2017 Series B Swap Transaction as a "Qualified Hedging Transaction" within the meaning of the Resolution. The 2017 Series B Swap Transaction is subject to early termination by the City or the counterparty or counterparties at certain times and under certain conditions. The currently scheduled termination of the 2017 Series B Swap Transaction is October 1, 2044. However, the City has an optional early terminate date of October 1, 2027 and semiannually thereafter, subject to early termination terms. The parties entered into a bilateral Credit Support Annex to which eligible collateral includes cash or Treasury securities having a remaining maturity on such date of one year or less, Treasury securities having a remaining maturity on such date greater than one up to and including five years or Treasury securities having a remaining maturity on such date of greater than five years up to and including ten years. The threshold amount for posting collateral is based upon the counterparty's or counterparties' long term unsecured and unenhanced debt ratings from S&P and Moody's and the City's credit ratings on senior lien Bonds. If the credit ratings drop below BBB- by S&P and Baa3 by Moody's, the threshold shall be \$0.

In December of 2017, the President signed the Tax Cuts and Jobs Act into law. One provision of this law was to change the maximum corporate tax rate from 35% to 21%. Based on the agreements underlying the 2017 Series B Bonds, there was an adjustment to the percent of LIBOR that GRU pays on the 2017 Series B Bonds. The effect was to change the index associated with the 2017 Series B Bonds from 70% of 1 Month LIBOR to 85% of 1 Month LIBOR (which also resulted in an adjustment to the Applicable Spread (as defined in the 2017 Series B Bonds)). Due to this change, the underlying index for the bonds no longer matches the underlying index for the 2017 Series B Swap Transaction. GRU does not believe these changes are material in nature.

Under the master agreements, the interest rate swap transactions entered into pursuant to such master agreements are subject to early termination upon the occurrence of certain "events of default" and upon the occurrence of certain "termination events." One such "termination event" with respect to the Bonds is a suspension or withdrawal of certain credit ratings with respect to the Bonds, or a downgrade of such ratings below the levels set forth in the master agreement or in the confirmation related to a particular

interest rate swap transaction. Upon the early termination of an interest rate swap transaction, the City may owe the applicable counterparty a termination payment, the amount of which could be substantial. The amount of any such potential termination payment would be determined in the manner provided in the applicable master agreement and would be based primarily upon prevailing market interest rate levels and the remaining term of the interest rate swap transaction at the time of termination. Such termination payments are Subordinated Hedging Contract Obligations pursuant to the terms of the Resolution. In general, the ratings triggers on the part of the System contained in the master agreements range from (x) if any two ratings are below "Baa2" by Moody's and/or "BBB" by S&P and/or "BBB" by Fitch to (y) if the City fails to have at least one rating of "Baa3" by Moody's, "BBB-" by S&P or "BBB-" by Fitch.

The System's estimated aggregate exposure under all of its outstanding interest rate swap transactions (*i.e.*, the net amount of the termination payments that the System will owe its counterparties if all of the interest rate swap transactions were terminated) is \$47,373,357.18 as of December 31, 2018. As of September 30, 2017, the System's estimated aggregate exposure under all of its then outstanding interest rate swap transactions (*i.e.*, the net amount of the termination payments that the System would owe its counterparties if all of the interest rate swap transactions were terminated) was \$64,101,764.72. As of September 30, 2016, the System's estimated aggregate exposure under all of its then outstanding interest rate swap transactions (*i.e.*, the net amount of the termination payments that the System would owe its counterparties if all of the interest rate swap transactions were terminated) was \$93,138,518.72. As of September 30, 2015, the System's estimated aggregate exposure under all of its then outstanding interest rate swap transactions was \$77,042,766.58. As of September 30, 2014, the System's estimated aggregate exposure under all of its then outstanding interest rate swap transactions was \$55,103,516.23. Termination payments are Subordinated Hedging Contract Obligations pursuant to the terms of the Resolution.

The System adopted Governmental Accounting Standards Board ("GASB") Statement No. 53, Accounting and Reporting for Financial Reporting and Derivative Instruments, which addresses the recognition, measurement and disclosure of information for derivative instruments, and was effective for periods beginning after June 15, 2009. GASB Statement No. 53 requires retrospective adoption, which requires a restatement of the financial statements for the earliest year presented. GASB Statement No. 53 requires the fair market value of derivative instruments, including interest rate swap transactions, to be recorded on the balance sheet. Changes in fair value for effective derivative instruments are recorded as a deferred inflow or outflow, while changes in fair value for ineffective derivative instruments are recorded as investment income. This is a significant change from previous practice, which required the fair value of derivative instruments to be disclosed in the footnotes to the financial statements.

The System records assets and liabilities in accordance with GASB Statement No. 72, *Fair Value Measurement and Application*, which determines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurement.

Fair value is defined in Statement No. 72 as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). Fair value is a market-based measurement for a particular asset or liability based on assumptions that market participants would use in pricing the asset or liability. Such assumptions include observable and unobservable inputs of market data, as well as assumptions about risk and the risk inherent in the inputs to the valuation technique.

As a basis for considering market participant assumptions in fair value measurements, Statement No. 72 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels:

Level 1 inputs are quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date. U.S. Treasury securities are examples of Level 1 inputs.

Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. U.S. agencies, corporate bonds and financial hedges are examples of Level 2 inputs.

Level 3 inputs are unobservable inputs that reflect GRU's own assumptions about factors that market participants would use in pricing the asset or liability (including assumptions about risk).

Valuation methods of the primary fair value measurements are as follows:

Investments in debt securities are valued using Level 2 measurements because the valuations use interest rate curves and credit spreads applied to the terms of the debt instrument (maturity and coupon interest rate) and consider the counterparty credit rating.

Commodity derivatives, such as futures, swaps and options, which are ultimately settled using prices at locations quoted through clearinghouses are valued using level 1 inputs.

Other hedging derivatives, such as swaps settled using prices at locations other than those quoted through clearinghouses and options with strike prices not identically quoted through a clearinghouse, are valued using Level 2 inputs. For these instruments, fair value is based on pricing algorithms using observable market quotes.

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. GRU's assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the valuation of fair value assets and liabilities and their place within the fair value hierarchy levels. GRU's fair value measurements are performed on a recurring basis.

### **Funding the Capital Improvement Program - Additional Financing Requirements**

The System's current five-year capital improvement program requires a total of approximately \$349 million in capital expenditures in the fiscal years ending September 30, 2019 through and including 2023, and does not include the DHR Biomass Plant acquisition described above. Such amount was funded in part from Revenues and approximately \$147 million of additional Bonds (including additional commercial paper notes which are Subordinated Indebtedness). The following table shows the sources of funding for the fiscal years ending September 30, 2018 through and including 2022:

<b>Source of Funds:</b>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>Total</u>
Bond Financing	\$33,000,000	\$57,000,000	\$34,500,000	\$8,000,000	\$14,500,000	\$147,000,000
Revenues	51,000,000	43,000,000	37,500,000	40,000,000	30,500,000	202,000,000
<b>Total Sources</b>	<b>\$84,000,000</b>	<b>\$100,000,000</b>	<b>\$72,000,000</b>	<b>\$48,000,000</b>	<b>\$45,000,000</b>	<b>\$349,000,000</b>

Source: Prepared by the Finance Department of the System.

The table above represents GRU's planned future capital improvements to the System and the planned sources of funds. Future City Commission approved budgets could materially change the sources and uses of funds for the capital improvement program.

## **Factors Affecting the Utility Industry**

### General

The primary factors currently affecting the utility industry include environmental regulations, Operating, Planning and Critical Infrastructure Protection Standards promulgated by NERC under FERC jurisdiction, and the increasing strategic and price differences among various types of fuels. No state or federal legislation is pending or proposed at this time for retail competition in Florida.

The role of municipalities as telecommunications providers pursuant to the 1996 Federal Telecommunications Act resulted in a number of state-level legislative initiatives across the nation to curtail this activity. In Florida, this issue culminated in the passage, in 2005, of legislation codified in Section 350.81, Florida Statutes (Section 350.81) that defined the conditions under which municipalities are allowed to provide retail telecommunications services. Although the System has special status as a grandfathered entity under this legislation, the provision of certain additional retail telecommunications services by the System would implicate certain requirements of Section 350.81. Management of the System does not expect that any required compliance with the requirements of Section 350.81 would have a material adverse effect on the operations or financial condition of GRUCom.

### Environmental and Other Natural Resource Regulations

The System and its operations are subject to federal, state and local environmental regulations which include, among other things, control of emissions of particulates, mercury, acid gases, SO<sub>2</sub> and NO<sub>x</sub> into the air; discharges of pollutants, including heat, into surface or ground water; the disposal of wastes and reuse of products generated by wastewater treatment and combustion processes; management of hazardous materials; and the nature of waste materials discharged into the wastewater system's collection facilities. Environmental regulations generally are becoming more numerous and more stringent and, as a result, may substantially increase the costs of the System's services by requiring changes in the operation of existing facilities as well as changes in the location, design, construction and operation of new facilities (including both facilities that are owned and operated by the System as well as facilities that are owned and operated by others, from which the System purchases output, services, commodities and other materials). There is no assurance that the facilities in operation, under construction or contemplated will always remain subject to the regulations currently in effect or will always be in compliance with future regulations. Compliance with applicable regulations could result in increases in the costs of construction and/or operation of affected facilities, including associated costs such as transmission and transportation, as well as limitations on the operation of such facilities. Failure to comply with regulatory requirements

could result in reduced operating levels or the complete shutdown of those facilities not in compliance as well as the imposition of civil and criminal penalties.

Increasing concerns about climate change and the effects of GHGs on the environment have resulted in EPA finalizing on August 3, 2015 carbon regulations, the Clean Power Plan, for existing power plants. Currently, the Clean Power Plan is being litigated and August 10, 2017, the United States Court of Appeals for the D.C. Circuit issued an order holding the challenges to the greenhouse gas new source performance standards ("GHG NSPS") in abeyance "pending further order of the court." The order also directs EPA to file status reports at 90-day intervals beginning October 27, 2017. Further litigation is expected regardless of the DC Circuit Court of Appeals decision. In addition, the EPA has been given presidential direction to review the Clean Power Plan. The court has also ordered the parties to file supplemental briefs addressing whether the challenges should be remanded to the EPA rather than held in abeyance. The briefs were filed on May 15, 2017.

On October 16, 2017, the proposed repeal of the Clean Power Plan was published in the Federal Register. Hearings were held November 28-29, 2017 in West Virginia. On January 11, 2018, the comment period extended to April 26, 2018 and three listening sessions were held in February and March in Missouri, California and Wyoming. The Whitehouse OMB received the EPA's proposal to replace the CPP on July 9, 2018. Then, on August 21, 2018, EPA proposed the Affordable Clean Energy (ACE) plan as a replacement to the CPP. It is currently under review.

### Air Emissions

#### *The Clean Air Act*

The Clean Air Act regulates emissions of air pollutants, establishes national air quality standards for major pollutants, and requires permitting of both new and existing sources of air pollution. Among the provisions of the Clean Air Act that affect the System's operations are (1) the acid rain program, which requires nationwide reductions of SO<sub>2</sub> and NO<sub>x</sub> from existing and new fossil-fueled electric generating plants, (2) provisions related to toxic or hazardous pollutants, and (3) requirements to address regional haze.

The Clean Air Act also requires persons constructing new major air pollution sources or implementing significant modifications to existing air pollution sources to obtain a permit prior to such construction or modifications. Significant modifications include operational changes that increase the emissions expected from an air pollution source above specified thresholds. In order to obtain a permit for these purposes, the owner or operator of the affected facility must undergo a "new source review," which requires the identification and implementation of BACT for all regulated air pollutants and an analysis of the ambient air quality impacts of a facility. In 2009, the EPA announced plans to actively pursue new source review enforcement actions against electric utilities for making such changes to their coal-fired power plants without completing new source review. Under Section 114 of the Clean Air Act, the EPA has the authority to request from any person who owns or operates an emission source, information and records about operation, maintenance, emissions, and other data relating to such source for the purpose of developing regulatory programs, determining if a violation occurred (such as the failure to undergo new source review), or carrying out other statutory responsibilities.

### The Cross-State Air Pollution Rule (CSAPR)

On July 6, 2011, the EPA released its final Cross-State Air Pollution Rule ("CSAPR"). This rule is the final version of the Transport Rule and replaces Clean Air Interstate Rule ("CAIR"). In Florida, only ozone season NO<sub>x</sub> emissions are regulated by CSAPR through the use of allowances.

Various states, local governments, and other stakeholders challenged CSAPR and, on August 21, 2012, a three-judge panel of the D.C. Circuit Court, by a 2-1 vote, held that the EPA had exceeded its statutory authority in issuing CSAPR and vacated CSAPR along with certain related federal implementation plans. As part of its holding, the D.C. Circuit Court panel held that the EPA should continue to administer the original CAIR program until the EPA promulgates a valid replacement.

On July 28, 2015, the D.C. Circuit ruled that Florida's allowance budget is invalid and remanded CSAPR to the EPA. On October 26, 2016 EPA published, in the *Federal Register* at 81 Fed. Reg. 74504, an update to the CSAPR to address the 2008 Ozone National Ambient Air Quality Standards ("NAAQS"). For three states (North Carolina, South Carolina and Florida), the EPA is removing the states from the CSAPR ozone season NO<sub>x</sub> trading program because modeling for the Final Rule indicates that these states do not contribute significantly to ozone air quality problems in downwind states under the 2008 ozone NAAQS. Therefore, GRU did not have to meet ozone season limits in 2018 and, most likely, will not in 2019.

### EPA's Rule Establishing Mercury and Air Toxics Standards ("MATS")

On December 16, 2011, the EPA promulgated a rule to reduce emissions of toxic air pollutants from power plants. Specifically, these mercury and air toxics standards or MATS for power plants will reduce emissions from new and existing coal- and oil-fired electric utility steam generating units ("EGU"). The EPA also signed revisions to the new source performance standards for fossil fuel-fired EGUs. Such revisions revised the standards that new coal- and oil-fired power plants must meet for particulate matter, SO<sub>2</sub> and NO<sub>x</sub>. On November 25, 2014, the United States Supreme Court accepted certiorari to hear challenges to the mercury rules.

On June 29, 2015, the U.S. Supreme Court issued a 5-to-4 decision reversing a prior D.C. Circuit decision to uphold MATS for electric generating units. *Michigan, et al. v. EPA, et al., No. 14-46 ("Michigan v. EPA")*. The Court granted review on a single issue: "Whether the Environmental Protection Agency unreasonably refused to consider costs in determining whether it is appropriate to regulate hazardous air pollutants emitted by electric utilities." Writing for the majority, Justice Scalia held that EPA "strayed far beyond" the "bounds of reasonable interpretation" when the Agency interpreted the Clean Air Act to mean that it "could ignore costs when deciding to regulate power plants." The Court remanded the case to the D.C. Circuit Court for further proceedings consistent with the Court's opinion. On August 10, 2015, EPA stated in a motion filed with the D.C. Circuit Court that the EPA then planned to revise its "appropriate and necessary" determination for MATS by the spring of 2016, prior to the extended MATS compliance deadline of April 15, 2016. The EPA also stated that it intended to request that the D.C. Circuit Court remand the rule without vacatur while the EPA works on this revision. Since the D.C. Circuit Court did not vacate the rule, the MATS rule is still in effect.

On April 14, 2016, the Administrator of the EPA signed the final supplemental finding in the MATS rule. The new "appropriate and necessary" finding responds to the U.S. Supreme Court decision in *Michigan v. EPA*, and explains how the EPA has taken cost into account in evaluating whether it is

appropriate and necessary to regulate coal- and- oil-fired EGUs under Section 112 of the Clean Air Act (the "CAA"). The EPA still concludes it is proper to regulate mercury emissions from power plants.

On May 6, 2016, the EPA filed a brief urging the U.S. Supreme Court to deny a *writ of certiorari* filed by 20 states, which requested that the Court review and reverse a decision by the U.S. Court of Appeals for the D.C. Circuit Court to remand MATS to the EPA without vacating the rule. According to the EPA's brief, the Supreme Court should deny review of whether MATS should have been vacated while the EPA made its "appropriate and necessary" finding because the issue was then moot since the EPA had issued the finding. Additionally, the EPA argued that the CAA, not the Administrative Procedure Act, governs whether MATS should have been vacated, and the CAA does not mandate vacatur of a rule on remand. Rather, the EPA argued that the CAA gives a court discretion on whether to vacate a remanded rule based on the circumstances. Finally, the EPA asserted that the D.C. Circuit Court was correct in not vacating MATS on remand because the EPA could quickly remedy the legal deficiency and vacating the rule would have been harmful to the public because it would have allowed an increase in emissions of hazardous air pollutants from EGUs.

Murray Energy became the first party to appeal the final MATS Appropriate and Necessary Finding, filing its petition for review on April 25, 2016, the same day the rule was published in the *Federal Register*. 81 Fed. Reg. 24,420 (Apr. 25, 2016). All petitions for review of the Finding must have been filed in the D.C. Circuit Court no later than June 24, 2016. As of this deadline, six petitions for review were filed in the D.C. Circuit Court and consolidated under the lead case *Murray Energy Corp. v. EPA*, No. 16-1127.

On October 14, 2016, the D.C. Circuit Court issued orders establishing the briefing schedule for the challenge related to MATS. In *Murray v. EPA*, 16-1127 (D.C. Cir.), industry petitioners challenge the EPA's supplemental determination that it was "appropriate and necessary" to regulate emissions of hazardous air pollutants from electric generating units.

On April 27, 2017, the D.C. Circuit Court granted the EPA's motions to postpone oral argument in the challenge to the EPA's supplemental determination that it was "appropriate and necessary" to regulate emissions of hazardous air pollutants from electric generating units ("Supplemental Finding"), *Murray v. EPA*, No. 16-1127 (D.C. Cir.), as well as in industry's challenge to the EPA's denial of administrative petitions for reconsideration of MATS, *ARIPPA v. EPA*, No. 15-1180 (D.C. Cir.). Oral argument in both cases was previously scheduled for May 18, 2017.

The court also ordered both challenges held in abeyance "pending further order of the court." EPA is directed to file status reports with the court every 90 days. The parties will be directed to file motions to govern future proceedings within 30 days of the EPA notifying the court and the parties of any action it has or will be taking with respect to the Supplemental Finding and the MATS reconsideration petitions.

So far, since the MATS program became effective on April 16, 2015, DH 2 (the only unit MATS applies to) has complied with all requirements.

### Regional Haze

On June 15, 2005, the EPA issued the Clean Air Visibility Rule, amending its 1999 regional haze rule, which had established timelines for states to improve visibility in national parks and wilderness areas throughout the United States. Under the amended rule, certain types of older sources may be required to install best available retrofit technology ("BART"). Some of the effects of the amended rule could be

requirements for newer and cleaner technologies and additional controls for particulate matter, SO<sub>2</sub> and NO<sub>x</sub> emissions from utility sources. The states were to develop their regional haze implementation plans by December 2007, identifying the facilities that will have to reduce emissions and then set emissions limits for those facilities. However, states have not met that schedule and on January 15, 2009, the EPA published a notice finding that 37 states (including Florida), the District of Columbia and the Virgin Islands failed to submit all or a portion of their regional haze implementation plans. The EPA's notice initiates a two-year period during which each jurisdiction must submit a haze implementation plan or become subject to a Federal Implementation Plan issued by the EPA that would set the basic program requirements. See "-- The Electric System – Energy Supply System – *Generating Facilities – Deerhaven*" herein for a description of the actions that have been taken by the System to install additional emission control equipment at DH 2 and reduce SO<sub>2</sub> and NO<sub>x</sub> emissions that potentially contribute to regional haze.

Emissions modeling was completed for DH 1 to determine its impact on visibility in the Class I areas within 300 km of the DGS. Results of this modeling confirmed that DH 1 had impacts on the applicable Class I areas below the 0.5 deciview threshold and therefore is exempt from the BART program associated with the regional haze program.

The reasonable further progress ("RFP") section of Florida's regional haze state implementation plan, which has been approved by EPA, applies to DH 2. The System has voluntarily requested a cap on SO<sub>2</sub> emissions, which provides DH 2 with an exemption from the RFP section. A draft permit from the FDEP was issued on June 1, 2012 approving the System's requested cap on SO<sub>2</sub> emissions, and the final permit was issued on June 26, 2012.

#### Internal Combustion Engine MACT

On August 20, 2010, the EPA published a final rule for the National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines, which covers existing stationary spark ignition reciprocating internal combustion engines located at major sources of hazardous air pollutant emissions such as power plant sites. This final rule, which became effective on October 19, 2010, requires the reduction of emissions of hazardous air pollutants from covered engines. Several of the System's reciprocating engines are covered by this rule and all are in full compliance.

#### Climate Change

On June 25, 2013, President Obama issued a Presidential Memorandum directing the EPA to work expeditiously to complete GHG standards for the power sector. The agency is using its authority under Section 111(d) of the Clean Air Act to issue emission guidelines to address GHG emissions from existing power plants. The Presidential Memorandum specifically directed the EPA to build on state leadership, provide flexibility and take advantage of a wide range of energy sources and technologies towards building a cleaner power sector. It also directed the EPA to issue proposed GHG standards, regulations or guidelines, as appropriate, for existing power plants by no later than June 1, 2014, and issue final standards, regulations or guidelines, as appropriate, by no later than June 1, 2015. In addition, the Presidential Memorandum directed the EPA to include in the guidelines, addressing existing power plants, a requirement that states submit to the EPA the implementation plans required under Section 111(d) of the Clean Air Act and its implementing regulations by no later than June 30, 2016. States would be able to request more time to submit complete implementation plans with the EPA being able to allow states until June 30, 2017 or June 30, 2018, as appropriate, to submit additional information completing the submitted plan no later than June 30, 2016.

Accordingly, on June 2, 2014, the EPA released a proposed rule, the Clean Power Plan Rule, that would limit and reduce carbon dioxide emissions from certain fossil fuel power plants, including existing plants. Finally, on August 3, 2015, the EPA released the final version of such rule, and on October 23, 2015, EPA published in the *Federal Register* the GHG existing source performance standards for power plants (the "Clean Power Plan"), and the final NSPS for GHG emissions from new, modified and reconstructed fossil fuel-fired power plants. The final Clean Power Plan was published at 80 Fed. Reg. 64662, and the final GHG NSPS were published at 80 Fed. Reg. 64510.

On October 23, 2015, the American Public Power Association ("APPA") and the Utility Air Regulatory Group ("UARG") filed a joint petition for review of the EPA's final Section 111(d) rule to regulate carbon dioxide ("CO<sub>2</sub>") emissions from existing electric generating sources in the D.C. Circuit Court. In addition, the state of West Virginia joined by Texas, Alabama, Arkansas, Colorado, Florida, Georgia, Indiana, Kansas, Kentucky, Louisiana, Michigan, Missouri, Montana, Nebraska, New Jersey, Ohio, South Carolina, South Dakota, Utah, Wisconsin, Wyoming, the Arizona Corporation Commission, and the North Carolina Department of Environmental Quality also filed their motion to stay the final Section 111(d) rule under the Clean Air Act. Such a stay would put implementation of the rule on hold until the court decides on its legality.

On January 26, 2016, 29 states requested that the U.S. Supreme Court stay implementation of the final GHG Clean Power Plan or Clean Power Plan (80 Fed. Reg. 64662 - Oct. 23, 2015), pending judicial review of the rule. On February 9, 2016, the Supreme Court granted the stay of the Clean Power Plan pending judicial review of the rule. The stay will remain in effect pending Supreme Court review if such review is sought. Since the US Supreme Court stayed the EPA rulemaking on the Clean Power Plan, that extraordinary action will delay any regulatory action. GRU continues to closely monitor any activities with respect to Climate Change and GHGs.

The D.C. Circuit Court issued an order on April 28, 2017, holding the consolidated Clean Power Plan cases in abeyance for 60 days. The D.C. Circuit Court is requiring the EPA to file status reports concerning its ongoing regulatory deliberations at 30 days intervals. The court also asked the parties to file supplemental briefs by May 15, 2017 addressing whether the judicial process should be ended and the matter should be remanded to the EPA.

On August 10, 2017, the United States Court of Appeals for the D.C. Circuit issued an order holding the challenges to the greenhouse GHG NSPS in abeyance "pending further order of the court. The order also directs EPA to file status reports at 90-day intervals beginning October 27, 2017.

On October 10, 2017, the EPA Administrator signed a rule proposing the repeal of the Clean Power Plan and on October 16, 2017 the proposed repeal of the Clean Power Plan was published in the Federal Register. On November 2, 2017, a hearing was announced for November 28 and 29, 2017 in West Virginia. On January 11, 2018, the comment period extended to April 26, 2018 and three listening sessions were announced for February and March in Missouri, California, and Wyoming.

With respect to a replacement rule, the Advance Notice of Proposed Rulemaking for the Clean Power Plan replacement was published on December 28, 2017. The Whitehouse OMB received the EPA's proposal to replace the CPP on July 9, 2018. Then, on August 21, 2018, EPA proposed the Affordable Clean Energy (ACE) plan as a replacement to the CPP. It is currently under review.

### Coal Combustion Products

The EPA published a final rule (40 CFR 257), effective October 14, 2015, to regulate the disposal of coal combustion residuals ("CCR") as solid waste under subtitle D of the Resource Conservation and Recovery Act ("RCRA"). The rule includes national minimum criteria for existing and new CCR landfills and existing and new CCR surface impoundments. GRU is subject to the requirements of the promulgated rule that are applicable to CCR ponds and landfill at Deerhaven.

On May 1, 2017, EPA Administrator Scott Pruitt sent a letter informing states that the EPA is working on guidance for implementing state permitting programs that allow flexibility in individual permits to manage the safe disposal of coal combustion residuals, known as CCR or "coal ash." The EPA expects that its new guidance will allow for the safe disposal and continued beneficial use of coal ash, while enabling states to decide what works best for their environment. GRU, through the Florida Electric Power Coordinating Group, made contact with FDEP's Tim Bahr on May 2, 2017 and he confirmed that the EPA shared some draft CCR permit program materials (draft FAQs, draft checklist, etc.) last week. The FDEP is planning to discuss that internally. The EPA has not finished drafting the guidance document that is intended to assist States in ensuring that their permit program applications are complete. This guidance has been published in the Federal Register. GRU continues to closely follow developments related to CCR regulations.

FCG has requested FDEP to apply to EPA for program approval through FDEP's incorporation by reference of the federal CCR Rule, in the Department's rules, which may include Florida specific provisions.

### Storage Tanks

GRU is required to demonstrate financial responsibility for the costs of corrective actions and compensation of third-parties for bodily injury and property damage arising from releases of petroleum products and hazardous substances from certain underground and above-ground storage tank systems. GRU has eleven fuel oil storage tanks. The South Energy Center has two underground distillate (No. 2) oil tanks, the JRK Station has four above-ground distillate oil tanks, two of which are empty and out of service, and two above-ground No. 6 oil tanks which are empty and out of service. DH has one above-ground distillate and two above-ground No. 6 oil tanks, one of which is out of service. All of GRU's fuel storage tanks have secondary containment and/or interstitial monitoring and GRU is insured for the requisite amounts.

### Remediation Sites

Several site investigations have been completed at the JRK Station, most recently in 2011. According to previous assessments, the horizontal extent of soils impacted with No. 6 fuel oil extends from the northern containment wall of the aboveground storage tanks to the wastewater filter beds and from the old plant building to Sweetwater Branch Creek. The results of the most recent soil assessment document the presence of Benzo[a]pyrene in one soil sample at a concentration greater than its default commercial/industrial direct exposure based soil cleanup target levels ("SCTL"). Four of the soil samples contained Benzo[a]pyrene equivalents at concentrations greater than its default commercial/industrial direct exposure based SCTLs. In addition, two of the soil samples contained total recoverable petroleum

hydrocarbons at concentrations greater than its default commercial/industrial direct exposure based SCTLs.

In the Site-Wide Monitoring Report dated March 24, 2011, measurable free product was detected in four wells. An inspection in April 2013 showed that groundwater contains four of the polynuclear aromatic hydrocarbons ("PAH") (Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, and Dibenzo[a,h]anthracene) at concentrations greater than their groundwater cleanup target levels ("GCTL"). With the exception of Benzo[a]pyrene, the concentration of the remainder of these parameters did not exceed their Natural Attenuation Default Concentrations. The groundwater quality data reported in the 2011 Site-Wide Groundwater Monitoring Report documents that groundwater quality meets applicable GCTLs at the locations sampled. It is likely that groundwater quality impacts exist in the area where residual number 6 Fuel Oil is present as a non-aqueous phase liquid.

Following the submittal of the August 2013 No Further Action Proposal, the FDEP prepared comments regarding the No Further Action Proposal and provided them to GRU in a letter dated January 10, 2014.

In August of 2014, GRU provided responses to the FDEP's January 2014 comment letter.

In March of 2016, an attempt was made to meet with the FDEP, but a time was not set up for a meeting. The delay in responding to GRU's comments was due in part to the FDEP waiting on resolution of the request to use an active hydraulic containment system as an engineering control. Ultimately, the FDEP rejected the use of the active containment system as an engineering control.

On April 17, 2017, the FDEP provided comments on GRU's August 2014 response to the FDEP January 2014 comment letter.

ECT prepared a response to the FDEP's comments which was submitted to the FDEP on October 19, 2018. The FDEP requested further assessment of the extent of No. 6 fuel oil in the subsurface. ECT's response proposed additional soil investigation to assess the extent of No. 6 fuel oil; both as a non-aqueous phase liquid and as stained soils. ECT also proposed temporarily shutting down the groundwater recovery system and evaluating whether free product returns to the wells. This information will be used to evaluate what actions will be needed to recover free product, if any is detected.

#### Water Use Restrictions

Pursuant to Florida law, a water management district in Florida may mandate restrictions on water use for non-essential purposes when it determines such restrictions are necessary. The restrictions may either be temporary or permanent. The SJRWMD has mandated permanent district-wide restrictions on residential and commercial landscape irrigation. The restrictions limit irrigation to no more than two days per week during Daylight Savings Time, and one day per week during Eastern Standard Time. The restrictions apply to centralized potable water as provided by the System as well as private wells. All irrigation between the hours of 10:00 a.m. and 4:00 p.m. is prohibited.

In addition, in April 2010, the County adopted, and the City subsequently opted into, an Irrigation Ordinance that codified the above-referenced water restrictions which promote and encourage water conservation. County personnel enforce this ordinance, which further assists in reducing water use and thereby extending the System's water supply.

The SJRWMD and the SRWMD each have promulgated regulations referred to as "Year-Round Water Conservation Measures," for the purpose of increasing long-term water use efficiency through regulatory means. In addition, the SJRWMD and the SRWMD each have promulgated regulations referred to as a "Water Shortage Plan," for the purpose of allocating and conserving the water resource during periods of water shortage and maintaining a uniform approach towards water use restrictions. Each Water Shortage Plan sets forth the framework for imposing restrictions on water use for non-essential purposes when deemed necessary by the applicable water management district. On August 7, 2012, in order to assist the SJRWMD and the SRWMD in the implementation and enforcement of such Water Conservation Measures and such Water Shortage Plans, the Board of County Commissioners of the County enacted an ordinance creating year-round water conservation measures and water shortage regulations (the "County Water Use Ordinance"), thereby making such Water Conservation Measures and such Water Shortage Plans applicable to the unincorporated areas of the County. On December 20, 2012, the City Commission adopted a resolution to opt into the County's "year round water conservation measures" and "water shortage regulations" ordinances in order to give the Alachua County Environmental Protection Department the authority to enforce water shortage orders and water shortage emergencies within the City.

#### Manufactured Gas Plant

Gainesville's natural gas system originally distributed blue water gas, which was produced in town by gasification of coal using distillate oil. Although manufactured gas was replaced by pipeline gas in the mid-1950's, coal residuals and spilt fuel contaminated soils at and adjacent to the manufactured gas plant ("MGP") site. When the natural gas system was purchased, the System assumed responsibility for the investigation and remediation of environmental impacts related to the operation of the former MGP. The System has pursued recovery for the MGP from past insurance policies and, to date, has recovered \$2.2 million from such policies. The System has received final approval of its Remedial Action Plan which entailed the excavation and landfilling of impacted soils at a specially designed facility. This plan was implemented pursuant to a Brownfield Site Rehabilitation Agreement with the State. Following remediation, the property has been redeveloped by the City as a park with stormwater ponds, nature trails, and recreational space, all of which were considered in the remediation plan's design. The duration of the groundwater monitoring program will be for the duration of the permit, and that timeframe is open to the results of what the sampling data shows.

Based upon GRU's analysis of the cost to clean up this site, GRU has accrued a liability to reflect the costs associated with the cleanup effort. During fiscal years ended September 30, 2017 and 2016, expenditures which reduced the liability balance were approximately \$1.1 million and \$1.0 million, respectively. The reserve balance at September 30, 2017 and 2016 was approximately \$814,000 and \$629,000, respectively.

GRU is recovering the costs of this cleanup through customer charges. A regulatory asset was established for the recovery of remediation costs from customers. Through fiscal years ended September 30, 2018 and 2017, customer billings were \$1.3 million and \$1.1 million, respectively, and the regulatory asset balance was \$11.7 million and \$13.1 million, respectively.

Although some uncertainties associated with environmental assessment and remediation activities remain, GRU believes that the current provision for such costs is adequate and additional costs, if any, will not have an adverse material effect on GRU's financial position, results of operations, or liquidity.

## Wholesale and Retail Electric Restructuring

### Energy Policy Act of 2005

The 2005 Energy Policy Act empowered FERC to enforce mandatory compliance with the Bulk Electric System reliability standards. FERC delegated policy enforcement and standard development to NERC who, in turn, delegated regional enforcement and monitoring to the FRCC in the State to become the ERO monitoring the System's compliance. The System is a "registered entity" with NERC and FRCC under the following nine functional categories and must comply with all standards applicable to those categories:

- Balancing Authority
- Distribution Provider
- Generation Owner
- Generation Operator
- Planning Authority
- Resource Planner
- Transmission Owner
- Transmission Operator
- Transmission Planner

Electric utilities registered as a Balancing Authority or Transmission Operator are required to undergo an on-site audit for compliance with the reliability standards once every three years. The System is registered as both a Balancing Authority and a Transmission Operator and is therefore subject to the 3-year on-site audit cycle. In addition to the NERC O&P reliability standards, GRU must comply with NERC's Critical Infrastructure Protection ("CIP") standards which helps ensure the cyber and physical security of GRU's Bulk Electric System ("BES"). In November, 2017, FRCC compliance auditors conducted an on-site audit for compliance with the standards and requirements associated with the System's functions within the Florida bulk power system as listed above. FRCC identified two (2) violations, both of which were treated as "compliance exceptions" by FRCC, meaning that no penalties are levied. The System's next on-site reliability compliance audit is anticipated to occur in November, 2020.

### FERC Order 779

FERC Order 779 was issued in May 2013 to deal with the establishment of Geomagnetic Disturbances ("GMD") reliability standards in two stages. Stage one became effective in April 2015 and required the development and implementation of operating procedures that mitigate the impact of GMD events. Stage two (Notice of Proposed Rulemaking, May 14, 2015) will require that the transmission system will be planned in a manner to mitigate the risks associated with GMD events such as system instability and/or uncontrolled separation. FERC Order 779 will have a minor impact on the System.

### FERC Order 1000

FERC Order 1000 became effective 60 days after publication of the final order in the Federal Register, August 11, 2011. Order 1000 affects transmission planning and cost allocation requirements and drives reform in three areas: planning, cost allocation and non-incumbent developers.

Planning element reforms:

- Each public utility transmission provider must participate in the development of a regional transmission plan.
- Regional and local transmission plans are to be driven by state or federal laws or regulation. Transmission needs and associated solutions are to be weighed against those requirements.
- Neighboring transmission regions are to coordinate the satisfaction of mutual transmission needs (efficiency and cost).

Cost allocation reforms:

- Each public utility transmission provider must participate in a regional cost sharing allocation method for the selected transmission solution.
- A similar cost allocation is required when neighboring transmission regions select an interregional solution.
- Participant finding is permitted. However, it may not be the regional or interregional allocation schema.

Developer reforms:

- With certain limitations, public utility providers must remove from their tariffs a federal right of first refusal for a regional transmission plan needs solution for the purposes of cost allocation.
- The reliability and service requirements of incumbent transmission providers may be dependent upon regional transmission infrastructure. The order requires the reevaluation of the regional transmission plan and the identification of alternative transmission solutions should the delay in infrastructure development adversely impact system reliability and/or the delivery of required services.

The System is a full participant in the regional transmission planning process through the FRCC.

Impact of Hurricane Irma

On September 10, 2017, the State of Florida was impacted by Hurricane Irma. At approximately 9:00 a.m., the center of Hurricane Irma made landfall at Cudjoe Key in the lower Florida Keys as a Category 4 storm, according to the National Weather Service. The center of Hurricane Irma made a second landfall as a Category 3 storm, at approximately 3:30 p.m., near Marco Island, which is located approximately 300 miles southwest of the City. The City recorded sustained winds of 70 mph along with approximately 12 inches of rain in the local area in a 24 hour period. As expected, due to the winds, rain and local area flooding, electric service and other outages were experienced. At the peak of the storm, about 46,000 customers were without power. GRU worked to restore power to approximately 84% of those customers without power within 48 hours after restoration efforts began, and 100% of those who lost service during the storm were restored by September 18, 2017. Any residual outages as a result of trees downed subsequent to the storm were dealt with on a case-by-case basis.

While there was some isolated structural damage and local area flooding, the electric system sustained no significant damage. None of GRU's power generating assets were damaged by the hurricane and the majority of the buildings were undamaged.

There were 50 customers that experienced a disruption to their drinking water service due to isolated incidents such as overturned trees. These individual customers were issued Precautionary Boil Water Notices and their water services were quickly restored. The overall water system maintained system pressure and delivered safe water throughout the incident.

The extreme rainfall and flooding had the biggest impact to the wastewater system. The flooding resulted in significant inflow of stormwater and floodwaters into the collection system which resulted in combined wastewater and stormwater overwhelming portions of the collection system. There were numerous locations that the collection system experienced overflows. GRU and private pumpers hauled over 13.8 million gallons of stormwater and wastewater from the collection system to mitigate release impact and help bring the system back to normal operation. During the hurricane and in the following days, it is estimated that approximately 3.5 million gallons of combined stormwater and wastewater were released from the collection system. It is estimated that approximately 80% (or 2.8 mg) of the release was stormwater and 20% (or 0.7 mg) was wastewater. Additionally, GRU lost power to 92 of the 170 wastewater lift stations. However, GRU was able to utilize 41 generators to keep such lift stations operational. GRU restored power to most of the GRU served lift stations by September 12, 2017. There was minimal impact to customers.

GRU coordinated with Alachua County Environmental Protection Department and the Alachua County Department of Health throughout the response and recovery to ensure public health and safety and environmental health. Immediately following the storm, GRU provided an initial notice of wastewater releases to the Florida Department of Environmental Protection ("FDEP") through the State Watch Office and the FDEP Pollution Public Notification website. Environmental assessment teams were deployed throughout the service area and regular regulatory updates and notification of significant operational changes were provided through email and FDEP Storm Tracker. On September 20, 2017, a final update was provided to all regulatory agencies summarizing environmental assessments and release volumes.

In response to wastewater overflows due to Hurricane Irma, FDEP has issued Consent Orders to numerous utilities across the State. The Florida Statutes do not offer regulatory relief for wastewater overflows for any reason, including force majeure. Since GRU responded aggressively and followed prudent utility practices to protect public health and safety and the environment, FDEP issued a Short Form Consent Order (SFCO) without Corrective Actions. The SFCO includes civil penalties based on the releases. In lieu of paying the civil penalties, GRU has elected to execute an In-Kind project that will improve the wastewater collection system. In addition, GRU is committed to reducing inflow and infiltration in the wastewater collection system and is in the process of conducting a Resiliency Study. This study will identify critical areas for infrastructure improvements and will help GRU prioritize future capital improvements. Projects identified through this study will be incorporated into the capital improvement budget and will help mitigate future wastewater releases. These projects are not included in the capital improvement plan in "—Funding the Capital Improvement Plan" below.

The water and wastewater systems did not experience any significant damage to the facilities as a result of the storm.

GRU continues to analyze the System in order to determine if any additional capital improvements will be needed. Initial assessments indicate that the System did not sustain any material infrastructure damage. Overall, the System remains in good condition. Costs associated with any necessary repairs, in addition to the extraordinary operational costs incurred as a result of the power outages, are preliminarily estimated to be approximately \$5.5 million.

As a result of the temporary loss of service, the City estimates an initial loss of revenue in the approximate amount of \$1.1 million, which is based upon the loss of electric service to active customers for a period of four days. The impact on the customer base caused by wind and flood damage from Hurricane Irma appears to be minimal.

In addition to federal aid that may be received to assist with offsetting potential costs and loss of revenues, GRU has property insurance, including loss of income insurance, and flood insurance. GRU will be aggressively pursuing all possible insurance claims and federal aid, including FEMA reimbursements. The City also has funds in the amount of approximately \$68 million in its Rate Stabilization Fund, as well as funds in the amount of \$41 million in unrestricted cash, that can be applied, if necessary, to pay for any damages, costs, or lost revenues that GRU may incur as a result of Hurricane Irma's impacts to the System. Based on past experience, the City expects FEMA reimbursements to approximate 75% of the expenditures.

As of September 22, 2017, electric, water, wastewater and GRUcom service was restored to 100% of the service area.

At the present time, the City does not believe the impacts of Hurricane Irma will materially adversely affect its ability to pay debt service on the 2019 Bonds.

#### Plant Vogtle Litigation re. Potential FERQ Jurisdiction of Power Purchase Agreements

JEA and the City of Jacksonville, Fla., recently filed a complaint in Florida state court for declaratory judgment regarding a power purchase agreement in place with MEAG Power since 2008. The power purchase agreement is tied to the expansion project at Plant Vogtle, a nuclear power generating facility in Georgia. Under the power purchase agreement, MEAG Power agreed to sell JEA a portion of the output of Plant Vogtle Units 3 and 4, two new nuclear generation units under construction in Burke County, Georgia. MEAG Power subsequently filed a breach of contract lawsuit against JEA. JEA and the City of Jacksonville believe the agreement violates the Constitution of the State of Florida and should be declared void and unenforceable.

JEA has filed a petition with FERC asking it to make a number of legal determinations related to the power purchase agreement between JEA and MEAG Power. In the petition, JEA has asked FERC to declare that it has jurisdiction over the power purchase agreement (and the transactions therein) under Section 201(b)(1) of the Federal Power Act ("FPA"), even though MEAG Power and JEA are each exempt from regulation by FERC as "public utilities" under Section 201(f) of the FPA. At this time, it cannot be predicted whether or not FERC will accept JEA's position. However, if FERC does accept JEA's position and takes jurisdiction over the power purchase agreement, this could impact wholesale contracts entered into by GRU.

#### Other Risk Factors

The future financial condition of the System could be affected adversely by, among other things, legislation, environmental and other regulatory actions as set forth above, changes in demand for services, economic conditions, demographic changes, and litigation. In addition to those items listed in the

preceding sentence, some of the possible changes in the future may include, but not be limited to, the following:

1. The City's electric, water and wastewater facilities are subject to regulation and control by numerous federal and state governmental agencies. Neither the City nor its consultants can predict future policies such agencies may adopt. Future changes could result in the City having to discontinue operations at certain facilities or to make significant capital expenditures and could generate substantial litigation. See "THE SYSTEM" above for more information.

2. Estimates of revenues and expenses contained in this Official Statement and the realization of such estimates, are subject to, among other things, future economic and other conditions which are unpredictable and which may adversely affect such revenues and expenses, and in turn, the payment of the 2019 Bonds.

## TAX MATTERS

### 2019A Bonds

General. In the opinion of Bond Counsel, under existing law, interest on the 2019A Bonds is excludable from gross income for federal income tax purposes. Further, Bond Counsel has expressed no opinion regarding the state tax consequences that may arise with respect to the 2019A Bonds.

The Internal Revenue Code of 1986, as amended (the "Code") and the regulations promulgated thereunder contain a number of requirements that must be satisfied subsequent to the issuance of the 2019A Bonds in order for the interest thereon to be and remain excludable from gross income for federal income tax purposes. Examples include: the requirement that, unless an exception applies, the City rebates certain excess earnings on proceeds and amounts treated as proceeds of the 2019A Bonds to the United States Treasury Department; restrictions on the investment of such proceeds and other amounts; and certain restrictions on the ownership and use of the facilities financed or refinanced with the proceeds of the 2019A Bonds. The foregoing is not intended to be an exhaustive listing of the post-issuance tax compliance requirements of the Code, but is illustrative of the requirements that must be satisfied subsequent to the issuance of the 2019A Bonds to maintain the exclusion of interest on the 2019A Bonds from gross income for federal income tax purposes. Failure to comply with such requirements may cause the inclusion of interest on the 2019A Bonds in the gross income of the holders thereof for federal income tax purposes, retroactive to the date of issuance of the 2019A Bonds. The City has covenanted to comply with each such requirement of the Code that must be satisfied subsequent to the issuance of the 2019A Bonds in order that interest thereon be, or continue to be, excludable from gross income for federal income tax purposes. The opinion of Bond Counsel is subject to the condition that the City complies with all such requirements. Bond Counsel has not been retained to monitor compliance with the described post-issuance tax requirements subsequent to the issuance of the 2019A Bonds.

Bond Counsel gives no assurance that any future legislation or clarifications or amendments to the Code, if enacted into law or otherwise become effective, will not cause the interest on the 2019A Bonds to be subject, directly or indirectly, to federal income taxation, or otherwise prevent the 2019A Bondholders from realizing the full current benefit of the tax status of the interest on the 2019A Bonds. During recent years, legislative proposals have been introduced in Congress, and in some cases have been enacted, that have altered or could alter certain federal tax consequences of owning obligations similar to the 2019A Bonds. In some cases, these proposals have contained provisions that were to be applied on a retroactive

basis. It is possible that legislation could be introduced that, if enacted, could change the federal tax consequences of owning the 2019A Bonds and, whether or not enacted, could adversely affect their market value. Prospective purchasers of the 2019A Bonds are encouraged to consult their own tax advisors regarding any pending or proposed federal legislation, as to which Bond Counsel expresses no view.

As to certain questions of fact material to the opinion of Bond Counsel, Bond Counsel will rely upon representations and covenants made on behalf of the City and certificates of appropriate officers and public officials (including certifications as to the use of proceeds of the 2019A Bonds and of the property financed or refinanced thereby).

Reference is made to the proposed form of the opinion of Bond Counsel attached hereto as "APPENDIX E – Form of Bond Counsel Opinion" for the complete text thereof. See also "LEGAL MATTERS" herein.

Alternative Minimum Tax. An alternative minimum tax is imposed by the Code on certain taxpayers other than corporations (as defined for federal income tax purposes). Interest on the 2019A Bonds will not be treated as an item of tax preference for purposes of the alternative minimum tax. Interest on the 2019A Bonds will therefore not be included in the alternative minimum taxable income of taxpayers other than corporations.

Original Issue Premium. The 2019A Bonds maturing on October 1 in the years 20\_\_ through and including 20\_\_ (collectively, the "Tax-Exempt Premium Bonds") have been sold to the public at an original issue premium. Section 171(a) of the Code provides rules under which a bond premium may be amortized and a deduction allowed for the amount of the amortizable bond premium for a taxable year. Under Section 171(a)(2) of the Code, however, no deduction is allowable for the amortizable bond premium in the case of bonds, like the Tax-Exempt Premium Bonds, the interest on which is excludable from gross income. Under Section 1016(a)(5) of the Code, the purchaser's basis in a Tax-Exempt Premium Bond will be reduced by the amount of the amortizable bond premium disallowable as a deduction under Section 171(a)(2) of the Code. Proceeds received from the sale, exchange, redemption or payment of a Tax-Exempt Premium Bond in excess of the owner's adjusted basis (as reduced pursuant to Section 1016(a)(5) of the Code), will be treated as a gain from the sale or exchange of such Tax-Exempt Premium Bond and not as interest.

The federal income tax treatment of original issue premium under the Code, including the determination of the amount of amortizable bond premium that is allocable to each year, is complicated and holders of Tax-Exempt Premium Bonds should consult their own tax advisors in order to determine the federal income tax consequences to them of purchasing, holding, selling or surrendering Tax-Exempt Premium Bonds at their maturity.

Original Issue Discount. The 2019A Bonds maturing on October 1 in the years 20\_\_ through and including 20\_\_ (collectively, the "Tax-Exempt Discount Bonds") have been sold to the public at an original issue discount. Generally, the original issue discount is the excess of the stated redemption price at maturity of such a Tax-Exempt Discount Bond over the initial offering price to the public (excluding underwriters and related parties thereto) at which price a substantial amount of that maturity of the Tax-Exempt Discount Bonds was sold. Under existing law, an appropriate portion of any original issue discount, depending in part on the period a Tax-Exempt Discount Bond is held by the purchaser thereof, will be treated for federal income tax purposes as interest that is excludable from gross income rather than as taxable gain. Original issue discount will not be treated as an item of tax preference for purposes of the alternative minimum tax.

Under Section 1288 of the Code, original issue discount on tax-exempt bonds accrues on a compounded basis. The amount of original issue discount that accrues to an owner of a Tax-Exempt Discount Bond, who acquires the Tax-Exempt Discount Bond in this initial offering, during any accrual period generally equals (i) the issue price of such Tax-Exempt Discount Bond plus the amount of original issue discount accrued in all prior accrual periods multiplied by (ii) the yield to maturity of such Tax-Exempt Discount Bond (determined on the basis of compounding at the close of each accrual period and properly adjusted for the length of the accrual period), less (iii) any interest payable on such Tax-Exempt Discount Bond during such accrual period. The amount of original issue discount so accrued in a particular accrual period will be considered to be received ratably on each day of the accrual period, will be excluded from gross income for federal income tax purposes, and will increase the owner's tax basis in such Tax-Exempt Discount Bond. Proceeds received from the sale, exchange, redemption or payment of a Tax-Exempt Discount Bond in excess of the owner's adjusted basis (as increased by the amount of original issue discount that has accrued and has been treated as tax-exempt interest in such owner's hands), will be treated as a gain from the sale or exchange of such Tax-Exempt Discount Bond and not as interest.

The federal income tax consequences from the purchase, ownership and redemption, sale or other disposition of Tax-Exempt Discount Bonds which are not purchased in the initial offering at the initial offering price may be determined according to rules which differ from those described above. Owners of Tax-Exempt Discount Bonds should consult their own tax advisors with respect to the consequences of owning Tax-Exempt Discount Bonds, including the effect of such ownership under applicable state and local laws.

Other Tax Consequences. Prospective purchasers of the 2019A Bonds should be aware that ownership of the 2019A Bonds may result in collateral federal income tax consequences to certain taxpayers, including without limitation, financial institutions, property and casualty insurance companies, individual recipients of Social Security or Railroad Retirement benefits, certain S Corporations and foreign corporations, individuals entitled to receive the earned income tax credit and taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry the 2019A Bonds. Prospective purchasers of the 2019A Bonds should also be aware that ownership of the 2019A Bonds may result in adverse tax consequences under the laws of various states. Bond Counsel has not expressed an opinion regarding the collateral federal income tax consequences that may arise with respect to the 2019A Bonds. Further, Bond Counsel has expressed no opinion regarding the state tax consequences that may arise with respect to the 2019A Bonds. Prospective purchasers of the 2019A Bonds should consult their tax advisors as to the collateral federal income tax and state tax consequences to them of owning the 2019A Bonds.

The federal income tax consequences from the purchase, ownership and redemption, sale or other disposition of 2019A Bonds which are not purchased in the initial offering at the initial offering price may be determined according to rules which differ from those described above. Holders of 2019A Bonds, should consult their own tax advisors with respect to the consequences of owning 2019A Bonds, including the effect of such ownership under applicable state and local laws.

Information Reporting and Backup Withholding. Interest paid on tax-exempt bonds, such as the 2019A Bonds, is subject to information reporting to the Internal Revenue Service in a manner similar to interest paid on taxable obligations. This reporting requirement does not affect the excludability of interest on the 2019A Bonds from gross income for federal income tax purposes. However, in conjunction with that information reporting requirement, the Code subjects certain non-corporate owners of 2019A Bonds, under certain circumstances, to "backup withholding" at the fourth lowest rate applicable to unmarried individuals with respect to payments on the 2019A Bonds and proceeds from the sale of 2019A Bonds. Any

amounts so withheld would be refunded or allowed as a credit against the federal income tax of such owner of 2019A Bonds. This withholding generally applies if the owner of 2019A Bonds (i) fails to furnish the paying agent (or other person who would otherwise be required to withhold tax from such payments) such owner's social security number or other taxpayer identification number ("TIN"), (ii) furnishes the paying agent an incorrect TIN, (iii) fails to properly report interest, dividends, or other "reportable payments" as defined in the Code, or (iv) under certain circumstances, fails to provide the paying agent or such owner's securities broker with a certified statement, signed under penalty of perjury, that the TIN provided is correct and that such owner is not subject to backup withholding. Prospective purchasers of the 2019A Bonds may also wish to consult with their tax advisors with respect to the need to furnish certain taxpayer information in order to avoid backup withholding and the procedures for obtaining exemptions.

PURCHASE, OWNERSHIP, SALE OR DISPOSITION OF THE 2019A BONDS AND THE RECEIPT OR ACCRUAL OF THE INTEREST THEREON MAY HAVE ADVERSE FEDERAL TAX CONSEQUENCES FOR CERTAIN INDIVIDUAL AND CORPORATE 2019A BONDHOLDERS, INCLUDING, BUT NOT LIMITED TO, THE CONSEQUENCES DESCRIBED ABOVE. PROSPECTIVE 2019A BONDHOLDERS SHOULD CONSULT WITH THEIR TAX SPECIALISTS FOR INFORMATION IN THAT REGARD.

Reference is made to the proposed form of the opinion of Bond Counsel attached hereto as "APPENDIX E – Form of Opinion of Bond Counsel" for the complete text thereof. See also "LEGAL MATTERS" herein.

## **2019B Bonds**

General. The following discussion is a brief summary of the principal United States federal income tax consequences of the acquisition, ownership and disposition of the 2019B Bonds by original purchasers of the 2019B Bonds who are "U.S. Holders" (hereinafter defined). This summary (a) is based on certain relevant provisions of the Code under existing law and are subject to change at any time, possibly with retroactive effect; (b) assumes that the 2019B Bonds will be held as "capital assets;" and (iii) does not discuss all of the United States federal income tax consequences that may be relevant to an owner of the 2019B Bonds in light of its particular circumstances, such as the Medicare tax under Section 1411 of the Code, or to owners of the 2019B Bonds subject to special rules, such as insurance companies, certain plans subject to Section 4975 of the Code, financial institutions, tax-exempt organizations, dealers in securities or foreign currencies, persons or entities holding the 2019B Bonds as a position in a "hedge" or "straddle," or owners whose functional currency (as defined in Section 985 of the Code) is not the United States dollar, or owners who acquire 2019B Bonds in the secondary market.

Owners of the 2019B Bonds should consult with their own tax advisors concerning the United States federal income tax and other consequences with respect to the acquisition, ownership and disposition of the 2019B Bonds, as well as any tax consequences that may arise under the laws of any state, local or foreign tax jurisdiction.

The term "U.S. Holder" means a beneficial owner of a 2019B that is (a) a citizen or resident of the United States, (b) a corporation, partnership or other entity created or organized in or under the laws of the United States or of any political subdivision thereof, (c) an estate the income of which is subject to United States federal income taxation regardless of its source or (d) a trust whose administration is subject to the primary jurisdiction of a United States court and which has one or more United States fiduciaries who have the authority to control all substantial decisions of the trust.