# Financial Review

# A. Cases Evaluated

The Integrated Resource Plan development included a review of many different assumptions, including the following Reference Case sensitivity cases:

General Sensitivity Cases

* Forecast of load
  + Sensitivity 1 evaluates zero load growth from 2019 levels.
  + Sensitivities 2 and 3 evaluate higher and lower load growth.
* Demand side management
  + Sensitivity 4 evaluates the effect of having no non-dispatchable DSM for GPC.
  + Sensitivity 5 considers the impact of aggressive non-dispatchable DSM expansion.
* Unit availability
  + Sensitivities 6 and 7 evaluate lower (0.5%) and higher (1.0%) forced outage rates (EFOR).
* Inflation in plant construction costs and cost of capital
  + Sensitivity 8 evaluates the impact of higher cost of capital
  + Sensitivity 9 incorporates a higher level of escalation in construction costs by two.
  + Sensitivity 10 incorporates a lower level of escalation in construction costs by one half.
* Availability and costs of purchased power
  + Sensitivity 11 considers the availability of economy purchases during peak hours.

CO2 Regulation and Fuel Price Sensitivities

* $0 per ton Carbon
  + Planning Scenarios 12, 15, and 18 consider the combination of $0 per ton CO2 with low, moderate, and high gas prices, respectively.
* $10 per ton Carbon
  + Planning Scenarios 13, 16, and 19 consider the combination of $10 per ton CO2 with low, moderate, and high gas prices, respectively.
* $20 per ton Carbon
  + Planning Scenarios 14, 17, and 20 consider the combination of $20 per ton CO2 with low, moderate, and high gas prices, respectively.

See the Resource Mix Study in Technical Appendix Volume 1 for more detailed descriptions of the sensitivities and planning scenarios performed and the resulting changes in the amounts and timing of new unit additions.

# B. Assumptions and Results

### B.1. Inflation Assumptions

The overall level of inflation assumed in this analysis is **REDACTED**, based on the NIPA: Implicit Price Deflator – GDP index contained in the March 2018 economic forecast from IHS Markit. Escalation of O&M and capital expenditures is **REDACTED** based on the Producer Price Index (PPI), All Commodities from the March 2018 IHS Markit forecast.

### B.2. Cost of Capital, Capital Structure, AFUDC and Tax Rate Assumptions

The costs of each of the IRP sensitivities, except for sensitivity 8, were evaluated using a regulated electric utility discount rate based on the following financial assumptions:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Structure | Cost | After-Tax  Weighted Cost\* |
| Debt | 45% | **REDACTED** | **REDACTED** |
| Common Equity | 55% | **REDACTED** | **REDACTED** |
| **Discount Rate = Weighted After-Tax Cost of Capital (WACC) =** | | | **REDACTED** |

*(\*based on 25.5% composite tax rate)*

The costs of capital for new generation could be higher than this. To address this uncertainty, a scenario was developed (sensitivity 8) which increased each component of the cost of capital by approximately 10% as follows:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Structure | Cost | After-Tax  Weighted Cost\* |
| Debt | 45% | **REDACTED** | **REDACTED** |
| Common Equity | 55% | **REDACTED** | **REDACTED** |
| **Discount Rate = Weighted After-Tax Cost of Capital (WACC) =** | | | **REDACTED** |

*(\*based on 25.5% composite tax rate)*

### B.3. Revenue Requirements and Annual Average Rates Results

For each of the IRP cases and sensitivities, Exhibits 0 through 20 show the annual revenue requirements, the annual cents/kWh, and the present worth of revenue requirements. The revenue requirements for each case consist of total production costs plus fixed costs associated with system expansion and environmental compliance for the existing fleet (cases 4 and 5 also include DSM related cost adjustments). For example, the **REDACTED**¢/kWh real levelized (in year 2019$) and the **REDACTED**¢/kWh nominal levelized from the IRP reference case (scenario 0) are calculated using the total system production costs plus system expansion and environmental fixed costs, all divided by total system kWh and then levelized. These values are provided for each sensitivity case. A summary table is provided with the results of the detailed calculations contained in Exhibits 0 through 20. This table also provides a percentage comparison of each sensitivity case to the reference case.

### B.4. Overall Assessment of the Business and Financial Risks

Georgia Power and its customers face risks related to loads (and resulting generation requirements), fuel and technology prices and availability, and environmental laws and regulations. The previously described analysis presents an assessment of the resulting cost uncertainty.

Additionally, new generation resources to serve Georgia Power’s regulated customers are generally being acquired through a competitive bidding process at market prices. This approach to generation procurement helps to mitigate the business and financial risks related to new generation.