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**VIA ELECTRONIC MAIL**

Clerk of the House  
Charles F. Reid  
P.O. Box 11867  
Columbia, South Carolina 29211

**Re: Report to the General Assembly and the Public Service Commission of the State of South Carolina Concerning the Conversion of the Wateree Generating Station to Burn Biomass as a Fuel**

Dear Clerk Charles F. Reid:

On behalf of Dominion Energy South Carolina, Inc. ("DESC"), and in compliance with Section 42 of Act No. 41 of 2025, attached please find DESC's Report to the General Assembly and the Public Service Commission of the State of South Carolina Concerning the Conversion of the Wateree Generating Station to Burn Biomass as a Fuel.

Please contact me if you have any concerns or questions concerning this filing.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Belton T. Zeigler". The signature is fluid and cursive, with a long horizontal stroke at the end.

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**DOMINION ENERGY SOUTH CAROLINA, INC.**

**Report to the General Assembly and the Public Service  
Commission of the State of South Carolina Concerning the  
Possible Conversion of the Wateree Generating Station to  
Burn Biomass as a Fuel**

Submitted Pursuant to Section 42 of Act No. 41 of 2025

## **Introduction**

Dominion Energy South Carolina, Inc. (“DESC”) submits this *Report Concerning Conversion of Wateree Generating Station to Burn Biomass as a Fuel* to the Public Service Commission of South Carolina (“Commission”). The report is provided in satisfaction of the requirements of Section 42 of Act No. 41 of 2025, the South Carolina Energy Security Act (“Act No. 41”). In Act No. 41, the General Assembly made the following finding:

To foster economic development and future jobs in this State resulting from the supply chains associated with the same while supporting the significant and growing energy and capacity needs of the State, enhance grid resiliency, and maintain reliability, the General Assembly finds that the State of South Carolina should take steps necessary to encourage the development of a diverse mix of long-lead, clean generation resources that may include nuclear and advanced nuclear, biomass as defined in Section 12-63-20(B)(2) of the S.C. Code, hydrogen-capable resources, fusion energy, and other technologies, and should preserve the option of efficiency development of such long-lead resources with timely actions to establish or maintain eligibility for or capture available tax or other financial incentives or address operational needs.<sup>1</sup>

In furtherance of this finding, the General Assembly further provided that:

Upon passage of this act, Dominion Energy shall evaluate the process for converting the Wateree Generating Station from coal-fired generation to biomass-fired generation. Biomass-fired generation includes, but is not limited to, generation from the firing of wood pellets and wood chips. Dominion Energy must make a report concerning the conversion process to the Public Service Commission and General Assembly by no later than January 13, 2026.<sup>2</sup>

This report evaluates the process for converting the Wateree Station (“Wateree”) to utilize biomass fuel using information from multiple sources including studies by the Electric Power Research Institute (“EPRI”), the South Carolina Forestry Association and the United States Forest Service, and data from the United States Department of Energy, and Dominion Energy

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<sup>1</sup> 2025 Act No. 41, § 33, reprinted as an editor’s note at S.C. Code Ann. § 58-3-65.

<sup>2</sup> 2025 Act No. 41, § 42, reprinted as an editor’s note at S.C. Code Ann. § 58-3-65.

Virginia, Inc. which converted three smaller coal-fired generation stations to burn biomass fuel. The evaluation focuses on the potential use of biomass generated by the forest product industry which comes in processed, or torrefied, form and as green or dried wood chips. The process for converting Wateree to utilize biomass will depend on the type of fuel to be burned. Accordingly, this report evaluates the availability and cost of both torrefied and green or dried wood chips but analyzes in detail the process for converting Wateree to burn green wood chips, which are the most available and economical choice given the alternatives. The report concludes that the conversion of Wateree Station would face significant challenges including:

- The volume of biomass fuel available in the State compared to the amount of fuel required for generating electricity at the scale of generation at Wateree.
- The amount of truck traffic that would be required to deliver this amount of fuel to the site.
- The cost of removing and replacing the current fuel receipt, fuel storage, fuel handling, and fuel injection systems at Wateree Station.
- The cost of converting the current boilers at Wateree Station to accommodate the unique combustion characteristics and additional safety issues when firing biomass.
- The cost of replacing certain air emission control equipment at Wateree Station which is incompatible with biomass.
- The reduction in generating capacity that would occur as a result of biomass conversion.
- Unresolved issues concerning
  - How to store the necessary quantities of biomass fuel on site given the

- volume that would need to be maintained to ensure a reliable supply,
- How to limit the wood chips from absorbing moisture when being stored because moisture can cause the caking of wood chips blocking the fuel supply system, and
- How to avoid, monitor or respond to spontaneous combustion of biomass fuel during storage.

The report concludes that converting Wateree to burn biomass fuels would not be cost effective at this time.

### **Wateree Station**

Wateree consists of two once-through, coal-fired supercritical steam generation units with a combined net dependable capacity of 684 MW. It is located in the Eastover area of lower Richland County, South Carolina, and having commenced commercial operations in 1970, is in its 56<sup>th</sup> year of operation. Wateree's electric generating capacity represents approximately 12% of the firm capacity available to DESC to meet customers' demands, specifically winter peak demands which are the largest net demands on DESC's system.

Although Wateree has been in operation for approximately 56 years and has been used intensively during that time, it is well-maintained, reliable and provides DESC's customers with around-the-clock dispatchable generation that is not weather-dependent or fuel-limited. During recent periods of record peak customer demands, Wateree played a critically important role in ensuring that all customers' energy needs were met. During the 2025 peak electric demand period, Wateree provided generating capacity that was critically important in ensuring that DESC had sufficient resources available on its system to meet customers' energy needs.

Wateree is able to provide safe, reliable, environmentally compliant, and economical generation capacity because DESC has consistently invested in capital maintenance for the units, and environmental, safety and digital control technology upgrades. The environmental upgrades include the installation of selective catalytic reduction equipment to limit NO<sub>x</sub> emissions, flue gas desulfurization systems to limit SO<sub>2</sub> and mercury emissions, and facilities and equipment to comply with the Federal Environmental Protection Agency's current Steam Electric Generation Effluent Limitation Guidelines (ELGs).

Given Wateree's age and technology, DESC has been actively evaluating plans for Wateree's eventual retirement since 2021. See, DESC's *Coal Plant Retirement Study Report*, filed in Commission Docket No. 2021-192-E. Since 2021, DESC has been careful to emphasize in its filings with the Commission that, considering its obligation to provide reliable service to customers, it will be unable to retire Wateree until sufficient replacement generation is available to preserve reliability.<sup>3</sup> DESC's most recent generation planning analysis was submitted in support of DESC's joint application with the South Carolina Public Service Authority ("Santee Cooper") for a certificate of environmental compatibility and public convenience and necessity for the Canadys Joint Resource, an approximately 2,180 MW advanced combined cycle natural gas generation station proposed to be constructed in Colleton County, South Carolina.<sup>4</sup> In that modeling, DESC assumed for planning purposes that it will retire Wateree by 2032 when the proposed Canadys Joint Resource is anticipated to come on line.<sup>5</sup> However, DESC believes that would be possible from an engineering perspective for Wateree to remain in service into the mid-

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<sup>3</sup> DESC 2025 IRP Update, at p. 118: "DESC remains committed to retiring Wateree and Williams as soon as suitably reliable and dispatchable replacement generation is constructed and available for service commensurate with the upgraded electric transmission and fuel supply assets needed to support it" (Docket No. 2025-9-E). See also Docket No. 2025-323-E (Joint application for siting of the Canadys Joint Resource).

<sup>4</sup> Docket No. 2025-323-E.

<sup>5</sup> DESC will share the output of the Canadys Joint Resource with Santee Cooper 50%-50%.

or late 2040's assuming continued investment in capital maintenance and upgrades, the availability of reasonably priced coal supplies, and environmental regulations that do not make it impractical to keep the plant open during that period.

The conversion of Wateree to burn biomass as a fuel, if feasible and cost justified, would require the plant to be offline for an extended period of time while the work of conversion is done. Given Wateree's critical role in supporting grid reliability, most of that conversion work cannot begin until adequate replacement capacity is constructed and in operation, which is currently forecasted to occur in 2032. Assuming that adequate replacement capacity is completed by 2032, and assuming a three to five-year period for completing conversion, Wateree would be expected to begin burning biomass between 2035 and 2037.

## **Biomass**

In the electric generation context, biomass refers to waste streams or engineered fuels obtained from silvicultural or agricultural activities or waste streams from solid waste disposal.

The most appropriate form of biomass that might be considered as fuel for a plant like Wateree is wood chips which can be fired in converted coal units. Typically, their Btu content is approximately 30% less than that of coal. A recent EPRI study of a biomass generating station owned by the Southern Company found that green wood chips burned in that unit had a Btu content that was approximately 34% less than the Btu content of coal.<sup>6</sup>

Wood chips are not compatible with the fuel handing and feed equipment and boiler design found in pulverized coal units like Wateree, but conversion of such units is technically possible as discussed below.<sup>7</sup> In addition, green wood chips contain high moisture content (53%

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<sup>6</sup> [1019762\\_Engineering and Economic Evaluation of Biomass Power Plants.pdf](#)

<sup>7</sup> Pulverized coal units feed coal from the plant's coal pile into mills inside the plant which pulverize coal into a fine powder before it is injected by pressurized into the boiler for combustion.

in the EPRI study) if not dried. Drying typically reduces moisture content to a level in the 25%-35% range, but dried wood chips will absorb water readily when stored on an exposed fuel pile as would be expected given the volume of fuel required at a high capacity generation station like Wateree.<sup>8</sup>

In 2004, the South Carolina Forestry Commission commissioned a *Potential for Biomass Energy Development in South Carolina* report to assess the amounts, locations, and types of forest biomass and agricultural crop residues available for potential use as an energy source. The report identified 22 million tons of forest biomass potentially available annually for energy use. The report estimated this amount to be sufficient to power ten 40-megawatt biomass power plants, with those ten units collectively representing approximately 62% of Wateree's capacity when fired with coal.<sup>9</sup>

A subsequent report issued by the US Forest Service in 2009, *Assessing the Potential for Biomass Energy Development in South Carolina*,<sup>10</sup> found that at a price of \$30 per ton, the wood products industry in the state could generate "a total of 16.5 million tons of biomass each year, assuming all of the biomass would be available for bioenergy production." However, the report found approximately 8.8 million tons of the 16.5 million tons of potential biomass is currently devoted to other uses, so that only about 8 million tons would be available for potential use for electric generation.<sup>11</sup>

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<sup>8</sup> <https://extension.psu.edu/co-firing-biomass-with-coal>

<sup>9</sup> [BiomassConspectus8-5-08.pdf](#)

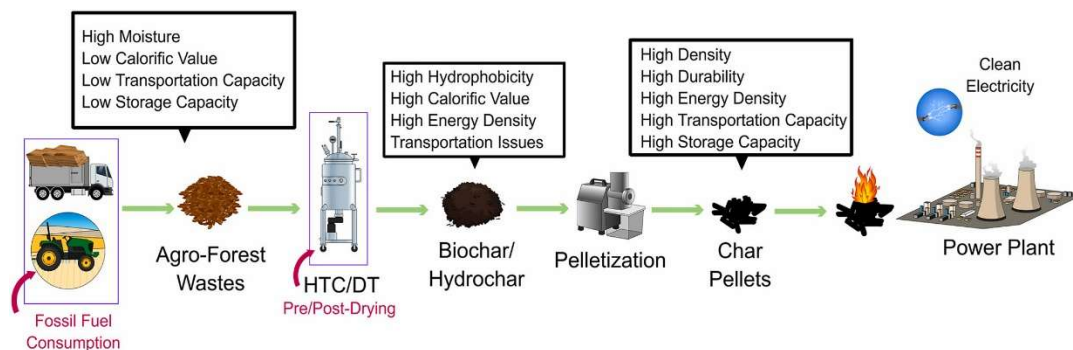
<sup>10</sup> Conner, Roger C.; Adams, Tim O.; Johnson, Tony G. 2009. Assessing the potential for biomass energy development in South Carolina. Res. Pap. SRS-46. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station.

<sup>11</sup> "At \$20 per ton, biomass from all sources could provide > 4.8 million tons to supply a biofuels industry in South Carolina. Increasing the price per ton to the \$30 maximum could result in a total of 16.5 million tons of biomass each year, assuming all of the biomass would be available for bioenergy production. As of 2008, just over 8.8 million tons were unutilized, including 540,000 tons from precommercial thinning. However, the technology and experience needed to efficiently and economically harvest this small-diameter (precommercial) material and logging residue currently are lacking." Conner, Adams, and Johnson, 2009, at 17.



An alternative to fueling Wateree with raw wood chips would be to use torrefied wood which is created by heating shredded wood material or wood chips to at least 200 to 300 degrees Celsius in a low oxygen environment to remove moisture and volatile organic chemicals from the wood. Torrefaction reduces the weight of the raw material by approximately 20% and can produce fuel that has a Btu content that is approximately 80% of the Btu content of coal. Pelletizing the torrefied wood creates a product of a standard shape and consistency that is less susceptible to absorbing moisture (but is by no means immune) and has handling and storage characteristics that are more consistent with the design and engineering of pulverized coal boilers. Torrefied wood may also remain in its shredded and unpelletized form in which case it is treated much the same as wood chips for purposes of fuel handling or combustion. **Figure 1** provides a schematic view of the torrefaction and pelletization of wood material.

**Figure 1: Torrefaction and Pelletization of Wood Material<sup>12</sup>**



While the research for this report has found little market data on the price of torrefied wood, the EIA reports data on densified biomass which consists of pelletized wood or other biomass whether or not it has undergone the torrefaction process. The EIA reports that in 2025, the domestic production capacity for densified wood pellets, both utility and non-utility, was

<sup>12</sup> Somaye Seraj, Ramin Azargohar, Ajay K. Dalai, “Dry torrefaction and hydrothermal carbonization of biomass to fuel pellets,” Renewable and Sustainable Energy Reviews, Volume 210, 2025: <https://www.sciencedirect.com/science/article/pii/S1364032124009122>.

13.4 million tons, approximately 85% of which is exported.<sup>13</sup> In July of 2025, the domestic price of densified biomass fuel averaged \$225 per ton nationally and was not lower than \$188 per ton at any location in the South, where most of the production is located.<sup>14</sup> By comparison, at the close of 2024, the market price for coal FOB at the mine was \$76.50/ton.<sup>15</sup> Wateree burned 160,000 tons of coal in July 2025 alone. The capital and operating cost of a wood torrefaction system sufficient to produce biomass fuel in quantity for Wateree would be significant.

Considering the supply costs and limitation in supply of torrefied wood products, and torrefied wood pellets in particular, they do not appear to be fuel that could be worthy of further evaluation. The balance of this report will consider the practicality of converting Wateree to fuels with raw or dried wood chips, or shredded torrefied wood.

### **Converting Wateree to Burn Biomass**

**Fuel Systems:** Fuel receipt, unloading, storage, handing, milling and feed systems and equipment are required for fueling a generating station like Wateree. As they exist today, these systems are designed to receive and off load coal from rail cars, store material with the hardness and density of coal on an open fuel pile and move fuel from the coal pile into the plant where a milling process pulverizes the coal into fine particles. A feed system then uses forced air to inject those coal particles through burners into the plant's steam boiler. The coal pile itself is designed to hold at least a 30-day supply coal to ensure reliable plant operation in times of interrupted supply.

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<sup>13</sup> [U.S. Energy Information Administration - EIA - Independent Statistics and Analysis](#)

<sup>14</sup> [U.S. Energy Information Administration - EIA - Independent Statistics and Analysis](#)

<sup>15</sup> Prefiled Direct Testimony of Michael Shinn, p. 8 in Docket No. 2025-2-E, [dms.psc.sc.gov/Attachments/Matter/0f866f2f-0e67-4d94-b5f1-e6ee23cf311d](https://dms.psc.sc.gov/Attachments/Matter/0f866f2f-0e67-4d94-b5f1-e6ee23cf311d)

For Wateree to operate on biomass, DESC would need to design and install fuel receipt, unloading, storage, handling, and feed systems that can accommodate a fuel which is lighter and softer than coal, more likely to retain moisture when exposed to the weather, subject to caking in the fuel feed system if wet, with a lower heat rate and a much larger particle size than coal, and which requires longer to fully burn. Very little of Wateree's current fuel equipment and system are suitable for use with biomass and would need to be scrapped and replaced.

Given its size, Wateree's current coal pile, if replaced with biomass, would only support a 10-day supply of fuel. To support a 30-day supply, a new biomass fuel pile would need to be something on the order of three times as large which would require greatly expanding the fuel pile's footprint.

**Fuel Delivery:** Unlike coal, the biomass supply chain is seasonal and subject to weather related disruption in logging activities, and potential changes in production rates from year to year. Biomass is less dense and often damp, meaning that by weight, it is more expensive to transport than coal.

Dominion Energy Virginia's three relatively small biomass units each require 2,000 tons/day or 100 trucks/day (at 20 tons/truck) to fuel 51 MW of generation. At this rate, fueling Wateree's 648 MW of capacity with biomass would require 1,270 trucks per day, or over 100 trucks per hour assuming a 12 hour per day delivery schedule. The routes to Wateree are limited due to the proximity of the site to both the Wateree River immediately to the east, the Congaree River to the west, and the Sparkleberry Swamp (headwaters of Lake Marion) to the south. The road access to the site is by the US-601 which parallels the Wateree River and Bluff Road, SC-46, which parallels the Congaree River and ends at its intersection with US-601 about a quarter mile from the plant entrance. The 1,270 trucks per day would need to be routed over these two

roads, as well as through feeder roads such as US 378 which intersects US-601 about 16 miles to the northeast, and US-176 and Interstate 26 which cross US 601 approximately 27-30 miles to the southwest. Mitigating the impact of this truck traffic would be a challenge and expense for the repowering project.

**Boiler Modifications:** Generation stations like Wateree are designed to work with the specific combustion and ash formation characteristic of pulverized coal. When pulverized coal is injected into the boiler and ignites, the draft within the boiler draws the burning coal and hot gases up past the tube walls where the heat of the burning coal vaporizes the water in the tube walls to produce the steam that drives the turbine generators that produce electricity. As the coal burns, it releases silicon, aluminum, iron and other constituents in molten form which combine and solidify forming ash that falls to the open bottom of the boiler for disposal. The design and geometry of a coal fired generating station's boiler is carefully calibrated to ensure that practically all combustible components of the coal, both gases and solids, are fully burned before the column of hot gas from below enters the superheater, heat recovery systems and flue gas exhaust systems that begin at the top of the boiler. The design of these boilers is also calibrated to ensure that most ash can condense and fall down to the bottom of the boiler and will not attach to the boiler and superheater surfaces creating unacceptable levels of slagging and fouling.

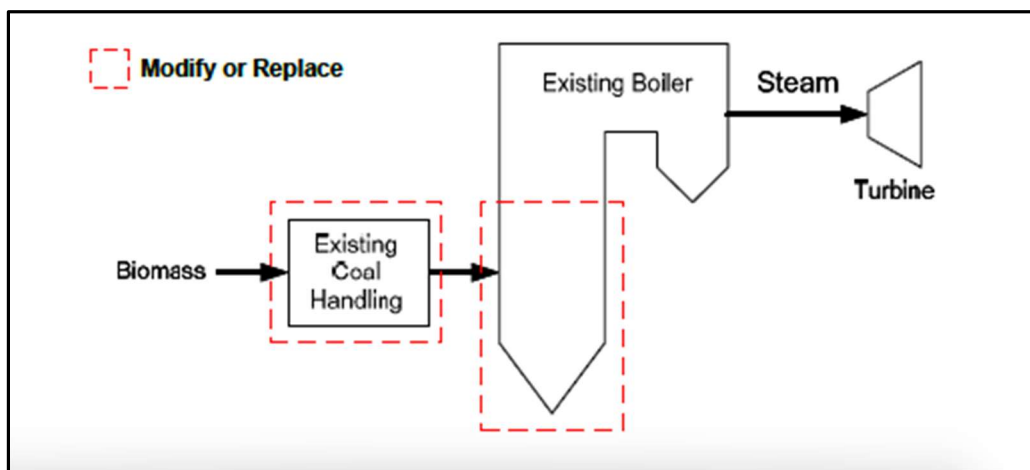
Wood chips and torrefied shredded wood have larger particle sizes and slower combustion rates than coal. They also have different ash formation temperatures which can cause slagging and fouling if burned in unmodified coal boilers. For that reason, converting Wateree to burn wood chips or torrefied shredded wood as its primary fuel would require major changes to the boiler that could range from replacing the lower half of the boiler to installing an entirely

new boiler altogether.<sup>16</sup> The EPRI study of repowering a 100 MW coal unit found that modifying such a unit without fully replacing the boiler would involve:

removing the lower furnace section (including the coal burner systems and much of the secondary air systems) . . . This strategy maintains the existing heat transfer surfaces located in the upper portion of the boiler and the existing steam cycle. To allow for the combustion of biomass as the sole fuel for the unit, a grate or fluidized bed system is installed in place of the coal burner systems.<sup>17</sup>

*Figure 2* provides a simplified schematic of the required modifications.

**Figure 2: Modification of an Existing Boiler<sup>18</sup>**



The EPRI study found that the best solution for repowering units of 100 MW would be to replace the lower part of the existing boiler with a bubbling fluidized bed (“BFB”) system in which primary air is forced through a high temperature bed of sand with combustion taking place within and above the sand bed. In such a system:

the fluidized state of the bed is maintained by hot primary air flowing upward through the bed. The air is introduced through a grid for even distribution. The amount of air is just sufficient to cause the bed material to fluidize. BFBs operate at low fluidizing velocities (about 3 to 10 ft/s), and the bed material maintains a relatively high solid density. This operation results in a well-defined bed surface with only a small fraction of the solids entrained in the flue gas stream leaving the bed. Hot sand in the bed effectively dries and volatilizes the fuel introduced. In this state, circulation patterns occur, which causes fuel

<sup>16</sup> EPRI, *Engineering and Economic Evaluation of Biomass Power Plants*, 2010, at 3-2.

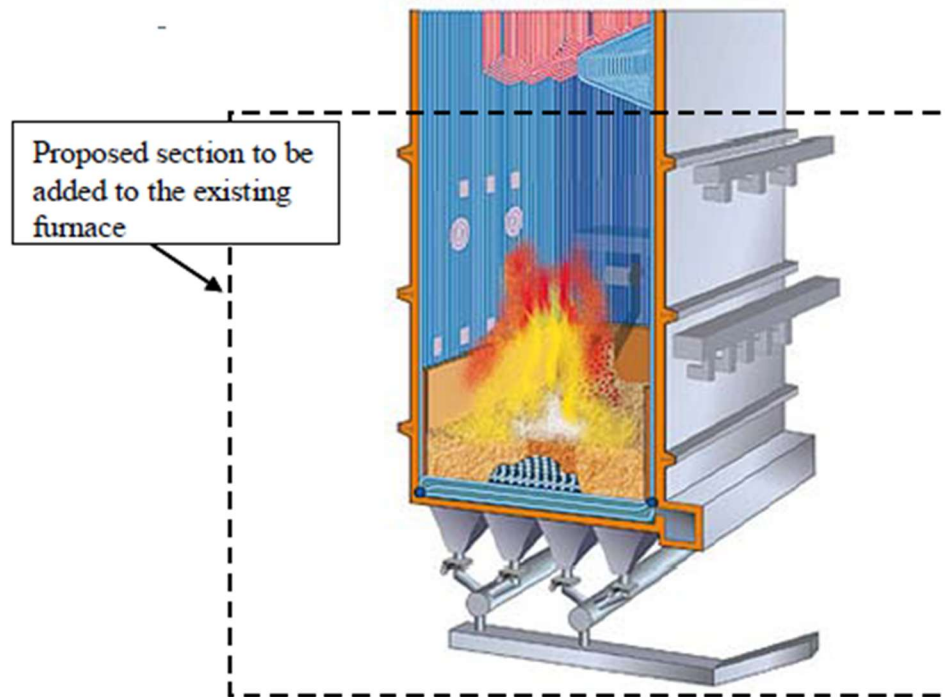
<sup>17</sup> *Id.*

<sup>18</sup> *Id.* at 3-3.

discharged on top of the bed to mix throughout the bed. Because of the turbulent mixing, heat transfer rates are very high, and combustion efficiency is good. The bed retains most of the heat of combustion; therefore, it is well-suited for low heating value, high moisture fuels, such as biomass.<sup>19</sup>

The resulting boiler is shown in **Figure 3**.

**Figure 3: Illustration of a Boiler Modified with a BFB System<sup>20</sup>**



It is also possible to repower an existing coal plant by retiring the entire existing boiler and replacing it with a new one, which can be a BFB, a circulating fluidized bed (“CFB”) system or a stoker system. Replacing the entire boiler allows the new boiler to be designed to accommodate the Btu content and combustion characteristics of biomass and upsized to potentially offset some of the lost capacity due to the conversion. Based on input from suppliers, EPRI has found that:

Because of (1) the differences in operating temperatures of BFB systems relative to PC systems, (2) the differences in fuel properties of biomass and coal, and (3) the re-use of

<sup>19</sup> *Id.* at 3-11, see also, *id.* at 3-2.

<sup>20</sup> *Id.* at 3.

heat transfer surfaces optimized for the coal-fired unit, the repowered (via boiler conversion) unit will likely be derated from its coal-fired generating capacity. Boiler suppliers are estimating a reduction in steam capacity and generation of 30 to 40%.<sup>21</sup>

In 2013, Dominion Energy Virginia, Inc. converted three small coal units to biomass fuel resulting in an overall drop in capacity of approximately 29%, from approximately 70 MW nameplate to approximately 50 MW.<sup>22</sup>

**Other Modifications:** Boiler and fuel handling changes are the largest but by no means the only modifications required in converting a coal unit to biomass. Biomass poses dust, fire and explosion risks, and flame detection challenges that are not present to the same degree in coal combustion. Biomass fuel piles are prone to fires caused by spontaneous combustion inside the pile. Additional systems, equipment and training to deal with these risks will be required. Biomass generation produces fewer constituents of air emission concern than coal. Most selective catalytic reduction (“SCR”) and selective non-catalytic reduction (“SNCR”) systems for NOx control are not commonly affected although vanadium-based catalysts can be poisoned by some volatile materials from biomass. Wateree has tungsten-vanadium based catalysts in their SCRs. In addition, burning biomass can also require the installation of an attemperation system prior to flue gas entering the baghouse where particulate matter is collected. Flue gases from biomass can foul the baghouse without attemperation.

**Cost:** EPRI estimated that the cost of conversion from coal to firing 100% biomass was \$4,050 KW in 2010 dollars for a 100 MW plant. Using this cost to calculate the estimated capital investment to convert Wateree to burn biomass fuel results in a cost of \$2.6 billion but considering the increase in construction and equipment costs in the intervening years, the cost of

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<sup>21</sup> [1019762\\_Engineering and Economic Evaluation of Biomass Power Plants.pdf](#)

<sup>22</sup> [https://www.gem.wiki/Altavista\\_Power\\_Station](https://www.gem.wiki/Altavista_Power_Station). Similar reports for the other two units are linked at that site. See also, [Dominion to Convert Three Va. Coal Plants to Biomass | Klean Industries](#); [Dominion's 1st coal-to-biomass plant goes live | Utility Dive](#); [Biomass Fuel Facilities | Dominion Energy](#)

converting the Wateree units beginning in 2032 is likely to be much higher. This expenditure would likely reduce but certainly not increase the capacity, reliability and safety of the plant. Fuel costs per kWh would also be expected to increase significantly. Currently, the largest wood biomass unit in the nation is the 102 MW Deerhaven Renewable Generating Station in Gainesville, Florida.<sup>23</sup> If converted to burn biomass from wood, the 648 MW Wateree plant would be the largest such plant in the nation by a factor of six. The US power industry has no experience with converting such units of the size of Wateree to burn biomass, which poses tremendous cost and schedule risks and many other uncertainties.

### **Trends Related to Biomass Electric Generation**

There appear to be no active projects in the Carolinas or in the Southeast generally to convert large coal units like Wateree to wood biomass. The absence of units larger than 102 MW anywhere within the United States is consistent with concerns stated above about supplying and transporting fuel for units the size of Wateree.

While solar and wind generation has been growing, nationwide, electric generation from wood biomass is declining. Annual energy generated from wood biomass peaked in 2018 at 40,936 thousand Megawatt Hours (“MWH”) or slightly less than 1.0% of all electric generation that year.<sup>24</sup> It fell to 31,564 thousand MWH by 2024,<sup>25</sup> a decline of 23% over the intervening six years.<sup>26</sup> The decline is shown on **Figure 4**.

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<sup>23</sup> <https://www.usabiomass.org/pnw-members/gru-deerhaven-renewable/>

<sup>24</sup> <https://www.eia.gov/todayinenergy/detail.php?id=38572#:~:text=U.S.%20net%20electricity%20generation%20increased,winters%20and%20a%20hot%20summer.>

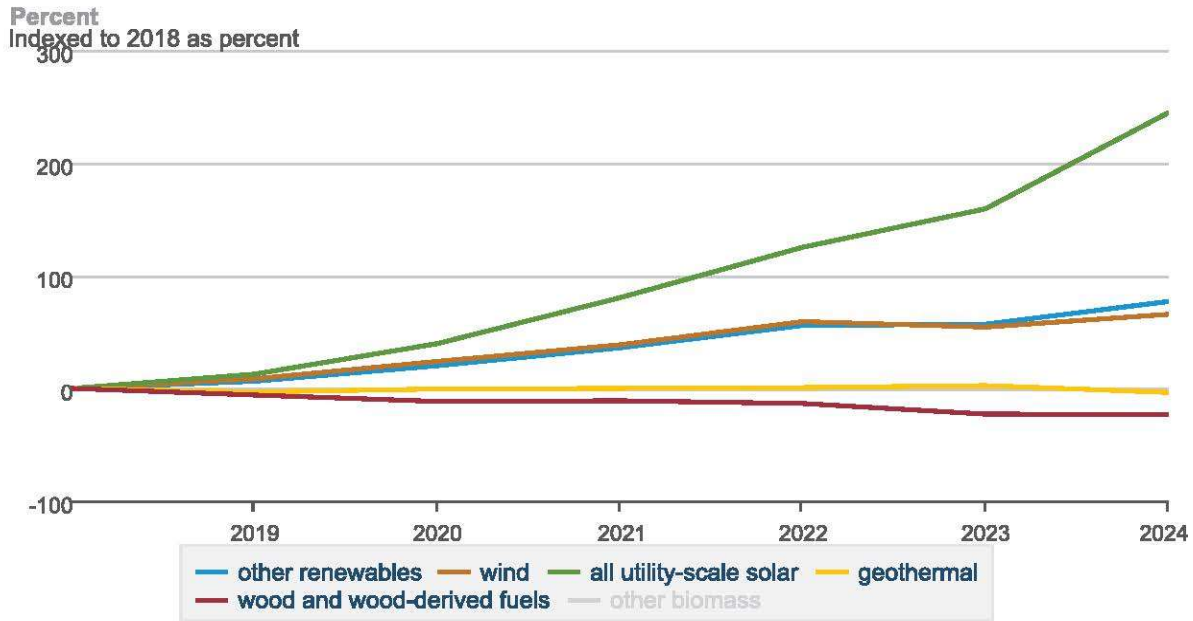
<sup>25</sup> [https://www.eia.gov/electricity/annual/table.php?t=epa\\_03\\_07.html](https://www.eia.gov/electricity/annual/table.php?t=epa_03_07.html)

<sup>26</sup> <https://www.eia.gov/electricity/data/browser/#/topic/0?agg=2,0,1&fuel=02fg&geo=g&sec=g&linechart=ELEC.GEN.ALL-US-99.A~ELEC.GEN.COW-US-99.A~ELEC.GEN.NG-US-99.A~ELEC.GEN.NUC-US-99.A~ELEC.GEN.HYC-US-99.A~ELEC.GEN.AOR-US-99.A~ELEC.GEN.WND-US-99.A~ELEC.GEN.SUN-US-99.A~ELEC.GEN.GEO-US-99.A~ELEC.GEN.WWW-US->



**Figure 4: Renewable Energy Production in the United States**

**Net generation, United States, all sectors, annual**



Beginning June 30, 2008, South Carolina offered tax incentives for the production of electricity using renewable fuels including biomass, but that incentive ended on July 1, 2018. S.C. Code Ann. § 12-63-20.

**Conclusion Concerning the Converting Wateree Station to Biomass Fueling**

As Act No.41 requires, DESC has evaluated the process for converting the Wateree Generating Station from coal-fired generation to biomass-fired generation and is submitting this analysis to the Commission and the General Assembly in satisfaction of the statutory

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requirement. Given the potential capital cost involved, fuel supply issues, reduction in capacity, reliability and safety issues, increase in fuel costs and the risks and uncertainties of a biomass conversion project of this magnitude, and given current environmental regulations and trends, DESC does not believe that converting Wateree to biomass would be in the best interest of customers or the system.