

Bayshore Regional Sewerage Authority (BRSA) Contract 114-S Power Resiliency Generation Project

The Bayshore Regional Sewerage Authority (BRSA) is proposing to construct a new Power Resiliency Generator System and associated Generation Building to maintain a continuous power supply to the BRSA and the Monmouth County Bayshore Outfall Authority (MCBOA) Pumping Station. The new generator system will be designed to supply power to BRSA and MCBOA in “Storm Anticipation Mode” which will enable both facilities to start up and operate approximately six (6) hours prior to a major storm event and continue plant operations during a resulting loss of utility power. Standby power will be available for a minimum of seven (7) consecutive days, the same period of time that utility power was unavailable as a result of Superstorm Sandy in 2012. The Power Resiliency Generator system will also supply power to BRSA and MCBOA when there is an extended loss of utility power from the Utility provider or when called to operate in this mode by the Utility as part of a Demand Management Agreement. The existing standby diesel generators at the BRSA and MCBOA facilities will remain as an emergency power supply in the event of power loss to portions of the facilities and short-term losses of power from the Utility provider. The intent of this project is to provide essential services of BRSA and MCBOA with reliable power in anticipation of and during major storm events, as these services are a 24/7 operation that must be maintained.

The project includes the installation of three (3) 1,500 kW natural gas fired generators in an enclosed Generation Building located in the northeast corner of the BRSA’s wastewater treatment plant. The building will be constructed using a portion of the existing wind turbine foundation and the building will be elevated above the 500-year flood elevation. The building has been designated as a “Special Industrial Occupancy” by the Borough of Union Beach Building Department. The Building stands at a total of 87 feet above grade with the finished first floor (generator location) elevation of 17 feet above grade and second floor (electrical switchgear location) of 44 feet above grade. All vents and louvers for the generators are oriented towards Raritan Bay to direct any noise and exhaust away from nearby residents. Power and conduit will be provided from the building to the MCBOA facility using a Horizontal Directional Drill (HDD) to avoid disturbance to the wetlands, MCBOA retention pond and disruptions of operation of the facilities. Other MCBOA facility upgrades include dry floodproofing of the existing MCBOA pumping station and a new power distribution enclosure (PDE), similar to those installed on the BRSA site, protected to the 500-year flood level allowing MCBOA to maintain operations during construction.

Construction access to the BRSA facility will be through 9th Street and to the MCBOA facility through Edmunds Avenue. Construction activities are expected to begin in 2022 and proceed for up to two (2) years. Union Beach residents will be notified of major construction activities that may impact traffic or the community. Currently, the generators are only planned to operate in “Storm Anticipation Mode” powering both facilities up to six (6) hours prior to a major storm event and continue operation during loss of utility power. Approximately 30 minutes of maintenance per month are required for each generator. For more information on this project, please review the PowerPoint presentation, that was given during the February 24, 2021 Union Beach Planning Board Meeting and available on the BRSA website at www.bayshorersa.com under “Projects”.

Questions & Answers from the Union Beach Planning Board Meeting (February 24, 2021 via Zoom)

- Question: Are the upper portions of the structure susceptible to high winds? Was there any regulation requiring wind studies to be performed?
Answer: We are not aware of any regulation requiring a study. The building is designed to withstand hurricane force winds (126 mph).
- Question: Will residents be notified when there is testing of the generators?
Answer: Currently, the BRSA tests their three (3) standby diesel generators twice per month and does not receive any complaints. The new natural gas generators will be enclosed in the Power Resiliency Generation Building with significant sound attenuation and the nearest neighboring residence is approximately 1,000 feet away from the Building location. Testing is expected to be conducted during daytime hours and will be in compliance with the local noise ordinance.
- Question: The local fire department and fire truck ladder is a maximum of 75 feet, will this be a problem?
Answer: No, the height of a ladder necessary for the rescue of personnel, who should not be above the second floor elevation, is approximately 44 feet above grade. There are also two (2) stairwells, one on each side of the building.
- Question: Will New Jersey Natural Gas (NJNG) be bringing in a new gas line to upgrade their system? Will the line be from the main road?
Answer: NJNG will be providing the new gas main and has confirmed the current system has capacity for this project. They will be running a new gas main from Florence Avenue.
- Question: Is BRSA willing to conduct a Public Meeting for the project?
Answer: BRSA has posted the PowerPoint presentation from the February 24, 2021 Union Beach Planning Board Meeting on their website under "Projects". The updated presentation will be given to the BRSA Board of Commissioners at the BRSA Public Meeting on April 19, 2021. During the April 19, 2021 Public Meeting a Public Comment sessions will be held for any additional questions or comments about the project as requested by the Borough of Union Beach.
- Question: Is BRSA receiving any grant funding for the project?
Answer: Yes, FEMA is providing funds for approximately 90% of the construction costs.
- Closing Comment: This is a great project and will be a benefit for the residents of Union Beach.