



## **REMARKS**

**By:**

**The Hon. Wayne Furbert, JP, MP  
The Acting Minister of Public Works**

-----

### **Throne Speech Initiatives & Tynes Bay Waste to Energy Facility 10 November, 2021**

---

Good afternoon.

Following the November 5<sup>th</sup> Speech from the Throne, as the Acting Minister of Public Works, I would like to provide an update on last year's initiatives and highlight the critical status of the Tynes Bay Waste-to-Energy Facility and what this Government is doing to address it.

In the November 2020 Speech from the Throne, the Ministry of Public Works focus was on three initiatives:

1. Introducing legislation to grant leasehold interest in the St. Georges Club to the St. Regis Hotel developers;
2. Constructing a marina in the Town of St. George's; and
3. Advance legislation to bring about municipal reform for the Corporation of Hamilton and St. Georges.

I am pleased to advise that a solution had been found to advance the Marina project for St. George's which will see the Corporation of St. George's benefit from a leasehold arrangement and the rental income and revenue that will come. In a ministerial statement to the House of Assembly on Friday I will provide additional details, including a timeline for the start of work on the Marina as well as a projected date for completion.

The public will be aware that the matter related to the Municipalities Act is before the courts. As a result I cannot comment further at this time.

Friday's Speech from the Throne raised the issue of Bermuda's waste management being an infrastructure crisis that we must devote all efforts to solving.

Located on Palmetto Road in Devonshire, Tynes Bay Waste-to-Energy Facility is a mass-burn waste-to-energy plant that combusts refuse and produces high-pressure steam for power production. It generates approximately One Hundred and Twenty-Five Thousand Kilowatt-hours per day. Most of that power is sold back to Belco through the power grid. Still, a third of it is utilized internally to power the plant and the Tynes Bay Seawater reverse Osmosis plant next door, which produces some seven hundred and fifty thousand (750,000) gallons of freshwater per day from renewable energy.

### **Critical Status**

The public will recall that the plant is now over 25 years old and has undergone major refurbishments. In 2009, elements of the waste burning units within the plant had reached their useful lifecycle

resulting in the plant experiencing frequent breakdowns and an excessive accumulation of solid waste. In 2010/2011, \$22Million was spent on plant upgrades to ensure the island's solid waste disposal program continued to meet the island's needs. While the facility upgrades were a significant investment, they were estimated to last only ten years.

With this in mind, in June 2012, Tynes Bay management decided to move towards creating a new foundation for Bermuda by seeking budgetary estimates from reputable contractors in the Waste to Energy Field for the design, supply, delivery, construction and commissioning of a complete third Unit. This third unit would ensure that the engineers could upgrade one of the existing units through proper future planning. The budgetary estimate provided at that time was \$95Million.

The priority of addressing the issues with Tynes Bay took a distant second place to the America's Cup under the previous Administration and as result the focus on the critical status of the plant was re-directed towards supporting that sporting event. In the interim, the engineers kept the plant going without the benefit of the necessary support and funding.

In 2018, the Plant's management conducted a feasibility study to provide Cabinet with a better understanding of the risk and lifecycle of the plant's systems. The results of this data-driven study indicated that over \$30M in critical systems would fail between 2019 -2022 and require replacement. These systems included the same boiler unit elements upgraded in 2010/2011, obsolete electrical switchgear and protection systems, the central crane units, and essential pumps. The

very same systems that should have formed part of a planned and continued upgrade in fiscal year 2013/14.

I can advise the public that as it stands now, the plant has experienced:

- Failure of a critical 27-year-old pump;
- Loss of a transformer unit;
- Monthly failures of both boiler unit economizer tubes; and
- Quarterly failure of the superheater tubes.

### **Ongoing Maintenance Costs**

The Primary maintenance costs stem from the amount spent on boiler leak repairs which continues to increase. In 2018 and 2019, the average spend was \$22,000 per year. In 2020, it increased almost fivefold to \$94,000. These were for one or two repairs per year. However, in stark contrast to the previous three years, as of 31 October 2021, there have been eight boiler leak repairs, the November repair estimate is \$110,000, and December remains unknown. Presently, the total repair estimate for 2021 is over \$536,000, and once again, more than a fivefold increase on the previous year.

It is essential to note that these costs do not account for the revenue lost when the units are not producing electricity, estimated at \$20,000 per day.

## **Recurring Issues**

As previously stated, Tynes Bay is over 25 years old, and with that age come the same recurring issues. For example, the Unit # 1 boiler underwent repairs this past September and October, yet developed another leak on Saturday. And unit # 2, which was running for five weeks, and the longest it has run in 6 months, developed a leak on Sunday gone.

Both units will need to come offline to prevent further damage, but we must balance our need to manage the island's garbage with how we affect repairs. Two teams of welders will be deployed from Germany to address the leaks, and both boilers will be shut down.

It is clear that Bermuda is in dire and desperate need of a new facility.

## **Solutions**

The Ministry's immediate strategy is to work toward ensuring the system remains operational. As we move into 2022, the plan is to invest an additional \$7.5 million into stabilizing the plant. This solution is short term and is estimated to last for 3-4 years. This will provide the Ministry, working with other stakeholders, the time to develop the business case necessary to support the funding proposals for such a major capital development; source the best model for the replacement plant and conduct the appropriate change in operations to provide seamless waste disposal for the people of Bermuda.

The choice is simple: we can either invest \$150 million to make significant upgrades to the plant or resort to dumping garbage in a

landfill. The latter is a step backwards and I know that it cannot be allowed to become our fate.

In his post-Throne Speech press conference, the Leader of the Opposition said, “why now? When we could be using the funds to support the economy, social programs and education.” The answer is quite simple. Firstly, Tynes Bay has gone beyond its life cycle, and it’s about to give up. If we do not take the necessary steps now, we will have no other choice but to build up trash around the Island. This is not the quality of life or environmental impact the Government wants.

### **Cross-Ministry Project Committee**

Despite the significant challenges with this project, I am pleased to advise that the plant is already on the path to refurbishment. The Government created a cross-ministry team to accelerate the replacement of critical assets and components within the facility in the short term, with the ultimate goal of a fully refurbished and repurposed facility within the next three to four years and finding creative funding solutions.

We envision long-term funding from the combined Tynes Bay and water and wastewater infrastructure currently underway, forming part of a new waste and water utility.

This project will see the Tynes Bay Waste to Energy facility repurposed as a central energy hub for the Waste Water infrastructure, forming a combined Waste and Water recovery utility that will attract investment partners.

Essentially, this new utility will produce freshwater from garbage and sewage, using the Tynes Bay plant to power water production and sewage treatment processes within the same facility.

I am confident that this new combined utility will capitalize on the natural synergies between Waste-to-Energy and water production and provide a sustainable and resilient means of water production and waste disposal for the island.

Thank you.