



HRP Inc. Board Meeting Operational and Business Updates

November 29, 2024

Indra Maharjan, President

Linda Campbell, VP Operations

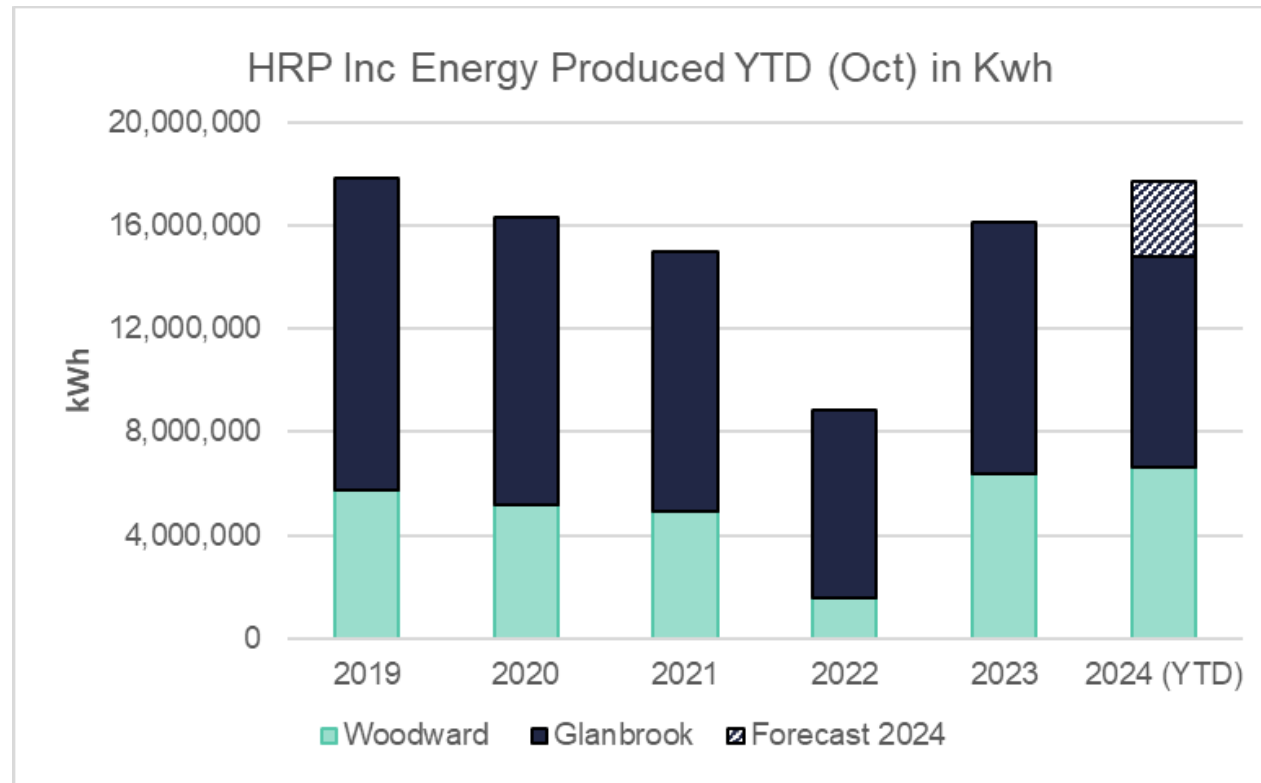
Agenda

- **Welcome & Opening Remarks**
 - **Introductions & Background**
 - **Operations Update on Existing Renewable Energy (RE) Generating Sites**
 - **Vision and mission discussion**
 - **Priority Focus: Returning Existing RE sites to Profitability**
 - **Funding/Procurement Approach**
 - **Future Strategy: Transition to RNG and/or electricity**
 - **Future Business Ideas: Solar and Thermal Energy projects**
 - **Discussion & Questions**
 - **Appendix**
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Updates on Existing Renewable Energy Generation Sites

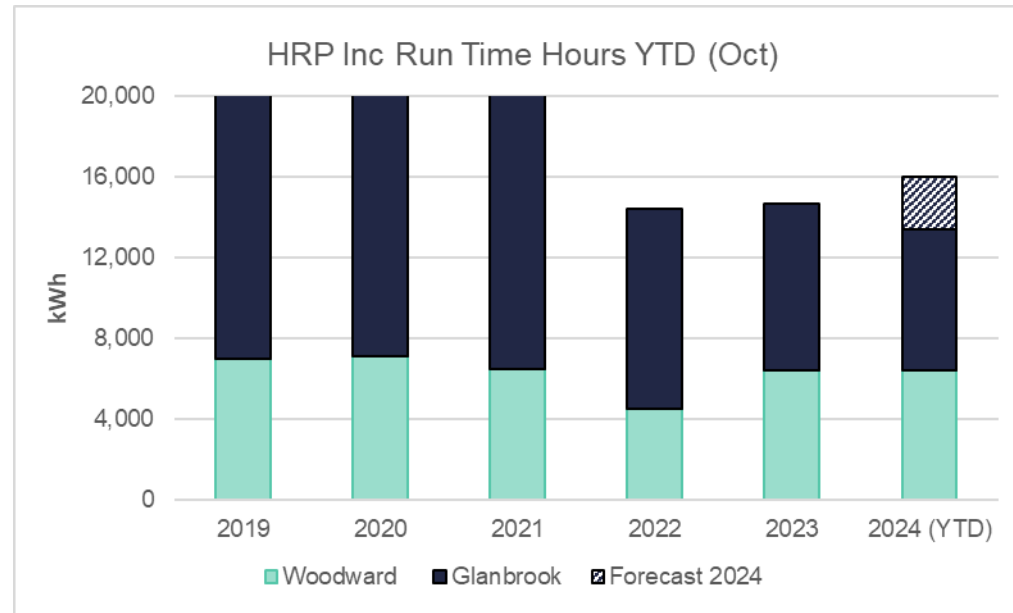
Operations Updates

2024 Energy Production -Combined





2024 Engine Runtime Hours



Other Updates

Glanbrook Landfill Cogeneration Site

- WSP Report on Review of Landfill Gas Collection System is complete and results have been presented to Council
- Task 5 of the above report -Modeling of Landfill Gas Generation by WSP has been completed
- Landfill well repairs are being initiated by Waste Management Division
- Waste Management are exploring option to create new vertical and horizontal wells

Woodward WTP Cogeneration Site

- Operations continue to be interrupted by costly operational maintenance requirements, but production continues



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Vision and Mission Discussions

Objectives

- Restore profitability by increasing operational run-time of CHP at Woodward and Glanbrook, addressing State of Good Repair, rehabilitation, or replacement needs
- Position HRP Inc. as the City of Hamilton's renewable energy project development entity

Goals

- Initiate next steps to pursue 30% design, engineering for transition of existing projects
- Implement an efficient governance model tailored to HRP Inc.'s unique needs, ensuring faster decision-making and reducing dependencies on City
- Streamline procurement processes to remove barriers and improve project execution timelines.



Vision and Mission

- Vision: Lead in sustainable resource management, turning resources into revenue while advancing environmental stewardship for the City of Hamilton.
- Mission: Leverage biogas and landfill gas at our existing sites to generate revenue and offset the tax levy, while exploring solar and thermal energy opportunities. As the driver of renewable energy projects for the City of Hamilton, HRPI aims to create value and advance environmental sustainability.

Priority Objectives – Existing Plants

Immediate Priority:

- Return the two existing renewable energy generation plants to profitability by addressing key challenges:
 - Aging infrastructure is reducing efficiency and increasing costs
 - Complete 30% design, engineering paving path to implementation of recommended option

Proposed Approach:

- Develop a funding strategy to support planned infrastructure and equipment upgrades
- Develop HRP Inc.'s own procurement policy to streamline decision-making and reduce dependency on city processes for project implementation stages



Funding/Procurement Approach

- **Grant applications** that are "free of cost" do **not require Board approval**, as per Section 3.03 of HRPI Corporate By-Law No. 1. Two officers can execute these applications. HRP Inc. will report back quarterly to the Board on all applications made and their outcomes.
- Without HRP Inc.'s own procurement policy, procurement has been conducted through the City. However, due to a recent **cyber incident**, **limited resources**, and **vendor availability**, HRP Inc. faces delays in securing consulting, engineering, and design services.

Request:

- Delegated authority to procure design/engineering services up to \$150,000 (current financial limitations considered) - already approved by board and can proceed with approval of TOC



Long-Term Goal – 100% Optimization of biogas production

- Transition to optimization of biogas production at both plants to increase revenues:
 - Woodward Wastewater Treatment Plant:
 - Transition to RNG (Renewable Natural Gas), which can be sold at higher rates than current outputs.
 - Explore potential project delivery partner and energy offtakers for RNG sales
 - Flare less and sell more energy to increase profit margins
 - Glanbrook Landfill site:
 - Optimize wells and the landfill for higher biogas production. This is a collaboration project with Waste Management
 - Negotiate a new electricity contract with Independent Electricity System Operator (IESO) MT2 € RFP Notice of Registration and Capacity Qualification has been confirmed approved.



Potential Business Areas – Solar & Thermal Energy

- HRP Inc.'s Role in Solar Projects:
 - Lead solar energy project development across city properties (planned for years 3-5, in partnership where possible)
 - Negotiating for multiple properties (e.g., 50+) offers better leverage for deals with utility companies and allows larger energy offset contracts with better rates.
- Thermal Energy Opportunities:
 - Explore sewer thermal heat recovery to support the City's carbon transition, targeting implementation in years 3-5, and collaborating with partners when feasible.



Proposed Study- Woodward WTP

Objective:

- Build the business case for expanding biogas utilization at the Woodward Wastewater Treatment Plant (WTP) to maximize Renewable Natural Gas (RNG) production.

Actions:

- Initiate 30% design engineering for infrastructure upgrades (Design-Build model).
- Complete feasibility study and present findings by Q3 2025.

Funding:

- Applied to Green Municipal Fund (GMF) for **50% funding** of feasibility costs (up to \$200,000).

Outcomes:

- Expand RNG capacity, reduce methane emissions, and align with Hamilton's climate goals.

Proposed Timeline WWTP Project

1. RFP Issuance and Green Municipal Fund (GMF) Application (Q4 2024)
2. Hire consultant to begin the feasibility study and business case (Early Q1 2025)
3. Feasibility study and business case completion (Q3 2025)
4. Capital Project Funding Application (Q1 2026)
5. RNG Facility Upgrade (2027)

Discussion & Questions



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