



# Waste to Energy

MUNICIPALITY OF ANCHORAGE



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# WHAT IS WASTE-TO- ENERGY?



# Waste to Energy

MUNICIPALITY OF ANCHORAGE





20-30MW  
of renewable energy  
for Anchorage



Generate revenue  
from waste streams



Resolve Landfill life,  
odor, leachate,  
biosolids & PFAS with  
one solution



Improve air, water,  
wildlife and public  
health

# WHY WTE MATTERS TO ANCHORAGE



# ECONOMIC BENEFITS FOR ANCHORAGE

**40**

Permanent  
Direct Jobs @  
WTE Facility

**\$30M**

Avoided Costs &  
Commodity  
Revenues per  
year

**\$25M**

Land Closure  
Fund Savings

**21**

Permanent  
Indirect Jobs  
(service industry,  
music, etc.)

**3,000**

Construction  
Jobs over 5 years

**\$135M**

of CAPEX  
Savings

# ADDITIONAL BENEFITS FOR ANCHORAGE

## Addressing Critical Anchorage Issues

**100+**

years landfill life extension

*4 generations of Anchorage schoolchildren*

**25-30**

MW renewable power generation

*Equivalent to powering 20,000 homes*

**21,900**

tons of biosolids per year

*Could fill 7 Bartlett High School Olympic swimming pools*

**24,500**

tons of contaminated (PFAS/PFOA) soil per yr

*Equivalent to 500 shipping containers sent to lower 48*

**7,000**

tons of metal recovered per year

*Equivalent to 1 Eiffel tower every year*

## Safely processing toxic and hazardous materials

# AVOIDED COSTS / REALIZED REVENUES

## Expensive Alternatives:

- Will help offset natural gas imports (electric prices expected to increase ~20% because of this)
- \$200/ton tipping fee increase (current is ~100/ton) for hauling waste to MSB, \$400/ton if shipped to PNW (no new landfill space at MOA)
- \$75M for biosolids management (AWWU rate Increase)
- \$60M Leachate management (SWS rate Increase)
- 10% Landfill Gas (LFGTE) recovery (\$2M/year) vs 25% WTE (\$14M/year)
- 12,600 tons/yr less LFG emissions and gas system savings (\$3.4M/year)



# OVERALL ROADMAP



# PROJECT ACHIEVEMENTS TO DATE

- ✓ **Feasibility Study & Preliminary Engineering**
- ✓ **Initial Investment of Funds**
  - \$8M from SWS and AWWU – April 2025
- ✓ **Established Program Management Office**
- ✓ **Contracts Issued:**
  - Siting Study
  - Wasteshed Analysis
  - Waste Characterization Study
  - Baseline Air Monitoring
  - Public Relations & Communications
  - Legal Services
  - Basis of Design Support Services
- ✓ **Implementation Plan & Cost Estimate**
- ✓ **Funding Strategy**
- ✓ **Additional RFPs ready for advertisement:**
  - Design, Operator and Construction Manager RFPs
  - Business Plan Development



# COST BREAKDOWN FOR INITIAL PHASES (\$3.2M TO DATE)

CONTRACT SERVICES	VENDOR		AWARDED	BUDGETED	Encumbered and fund certified
PMO Term Contract Services (WTE)	Jacobs	(Term)	\$3,431,615		
	Subconsultants	(Term)	\$671,300		
Siting Study	Dowl	(Term)	\$233,465		
Communications & PR Services	Agnew Beck	(RFP)	\$496,000		
Wasteshed Analysis	Geosyntec	(RFP)	\$299,905		
Waste Characterization Study	Geosyntec	(RFP)	\$493,500		
Meteorological & Ambient Air Quality Monitoring	Boreal	(RFP)		\$999,215	
Technical Performance Specification	Geosyntec	(Term)		\$250,000	
Site Layout and Civil Infrastructure Design Services	Dowl	(Term)		\$200,000	
Concept Design Services	TBA	(RFP)		\$800,000	
Legal Support Services	MOA Legal	(Term)		\$125,000	
<b>Subtotal</b>			<b>\$8,000,000</b>		

# BUSINESS PLAN DEVELOPMENT

Sufficient due diligence of environmental, engineering, and financial plans to demonstrate technical and economic feasibility, and enable the MOA to issue Bonds to finance the project.



## COST ESTIMATES

- Capital Expenditures
- O&M Costs



## WASTE SUPPLY ANALYSIS

- Feedstock Assessment
- Supply Agreements



## PARTNERSHIP REVENUE STREAMS

- PFAS Treatment
- Regional Waste
- Biosolids Treatment
- Leachate Treatment
- Hazardous Waste Storage



## SALES REVENUE STREAMS

- Tipping Fees
- Power Sales
- Metals Recovery
- Concrete Aggregate / Flyash
- Heat/Steam Sales



## PROVEN TECHNOLOGY

- Reliable WTE Systems
- Conversion Process



## FINANCIAL & RISK ANALYSIS

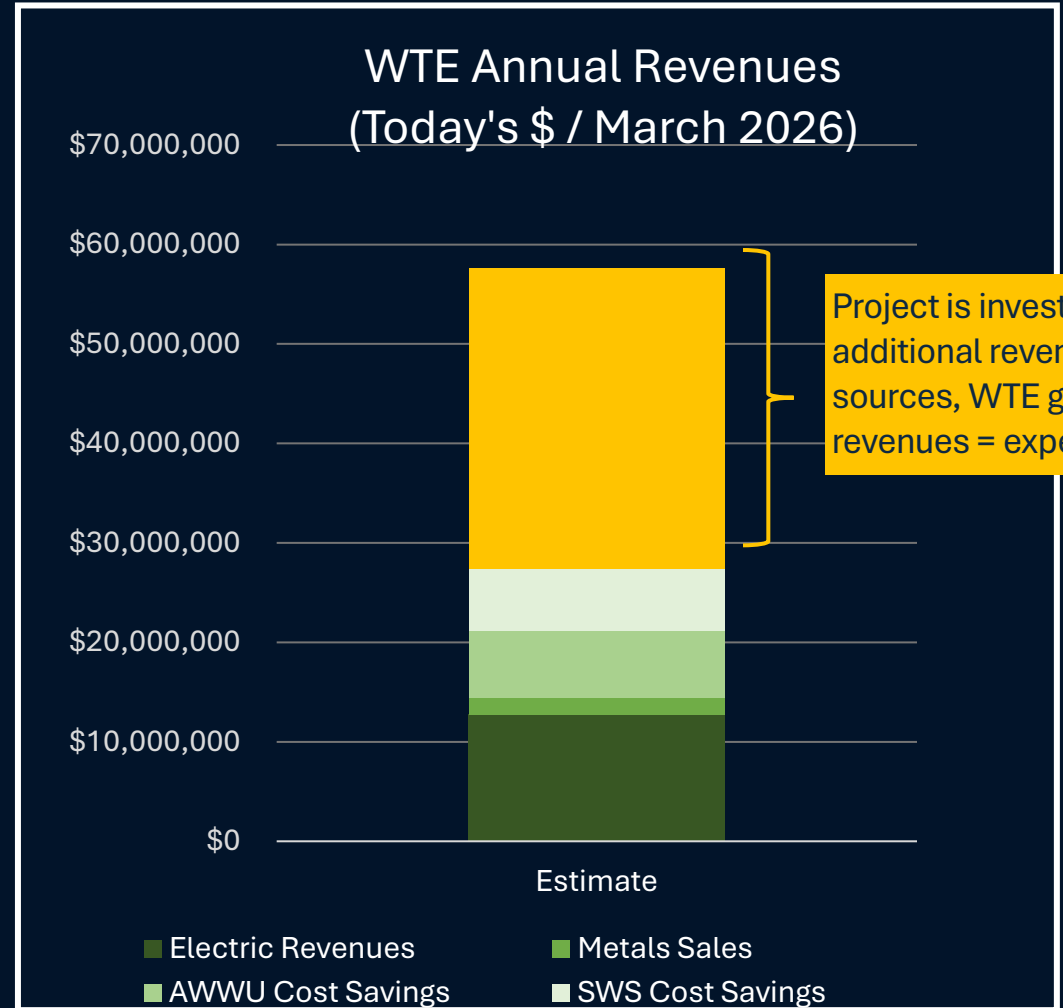
- Cash Flow Projection
- Debt Coverage
- Sensitivity Analysis
- Risk Mitigation



## ENVIRONMENTAL & PERMITTING

- Regulatory Approvals
- Compliance Strategy

# PRELIMINARY PROJECT ECONOMICS: EXPENSES VS REVENUES



# WTE BUSINESS PLAN: **ADDITIONAL FUNDS NEEDED**

CONTRACT SERVICES	VENDOR		AWARDED	BUDGETED	
PMO Term Contract Services (WTE)	Jacobs	(Term)	\$3,431,615		<b>\$8M from April 2025 funding approval</b>
	Subconsultants	(Term)	\$671,300		
Siting Study	Dowl	(Term)	\$233,465		
Communications & PR Services	Agnew Beck	(RFP)	\$496,000		
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Concept Design Services	TBA	(RFP)		\$800,000	
Legal Support Services	MOA Legal	(Term)		\$125,000	
<b>Subtotal</b>			<b>\$8,000,000</b>		
PMO Term Contract Services (WTE)	Jacobs	(Term)		\$1,360,000	<b>\$4.5M Requires additional spending authority</b>
	Subconsultants	(Term)		\$640,000	
Construction Manager @ Risk (Phase 1)	TBA	(RFP)		\$470,000	
Operations Manager @ Risk (Phase 1)	TBA	(RFP)		\$380,000	
Legal Support Services	TBA	(RFP)		\$650,000	
Contingency				\$1,000,000	
<b>Subtotal</b>			<b>\$4,500,000</b>		
<b>Grand Total</b>			<b>\$12,500,000</b>		

# ASSEMBLY ENGAGEMENT

2026

2027

ASSEMBLY APPROVAL	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1Q Budget Revision for \$4.5m project funding*	◆														
Air Quality Monitoring Contract	◆														
Front End Engineering Design Contract						◆									
Operator Management at Risk (OMAR)						◆									
Construction Management at Risk (CMAR)							◆								
Business Plan														◆	

\*\$4.5M project funding to come from ARL Closure and Post-Closure Investment Fund



# QUESTIONS?

(Reach out to me anytime, this is my favorite professional thing to talk about...)

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**THANK YOU!**

