The background is a light blue gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance.

# SUSTAINABLE LAUNDRY ON CAMPUS

FYE 100: CAN I CREATE A SUSTAINABLE LIFE (FA19)

INSTRUCTOR: DR. DAVID KRUEGER, CO-DIRECTOR, SUSTAINABILITY

# INTRODUCTION

- A LONG TERM INVESTMENT IN NEW LAUNDRY TECHNOLOGY
  - ECONOMICALLY EFFICIENT
  - ENVIRONMENTALLY SUSTAINABLE
- COST ANALYSIS OF INVESTMENT
  - COST MODELING
  - PAYBACK PERIOD OF INVESTMENT

# METHODS

- INDIVIDUAL RESEARCH
  - ECONOMICALLY & ENVIRONMENTALLY EFFICIENT MODELS
- THEORETICAL COST MODEL
  - USING GENERALIZED PRICES TO ESTIMATE NET SAVINGS
- CONTACTING GREAT LAKES CAMPUS LAUNDRY

- Economic Incentive
- Environmental Incentive

Individual Research

- Payback Period
- Yearly cost models

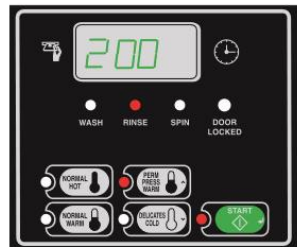
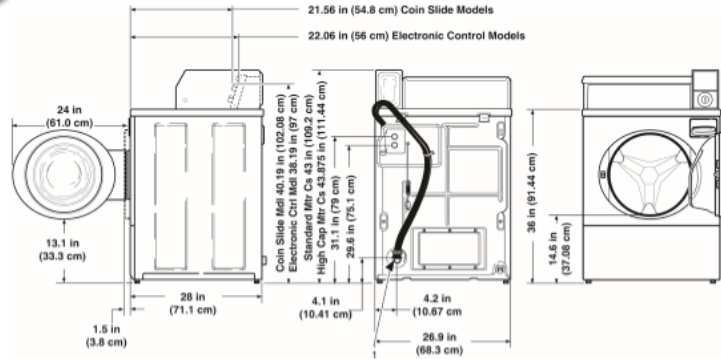
Theoretical Cost Model

- Gaining real world cost numbers
- Updating cost models & payback period

Contacting Regional Manager

# CURRENT MODEL (WASHERS)

- SPEED QUEEN COMMERCIAL FRONT LOAD WASHER
  - U.S. DOE COMPLIANT FOR WATER AND ENERGY STANDARDS
  - ULTRA EFFICIENT
  - HIGH SPEED EXTRACT OF 1 000 RPM CREATES CLEANER CLOTHES



Prep for Card  
("Y")



Prep for Coin  
("X")



Coin  
("C")



ENERGY STAR® Qualified

# REPLACEMENT MODELS (WASHERS)



**KENMORE 41262 FRONT LOADING.**

- ENERGY STAR QUALIFIED
- 1,300 RPM MAX SPIN SPEED



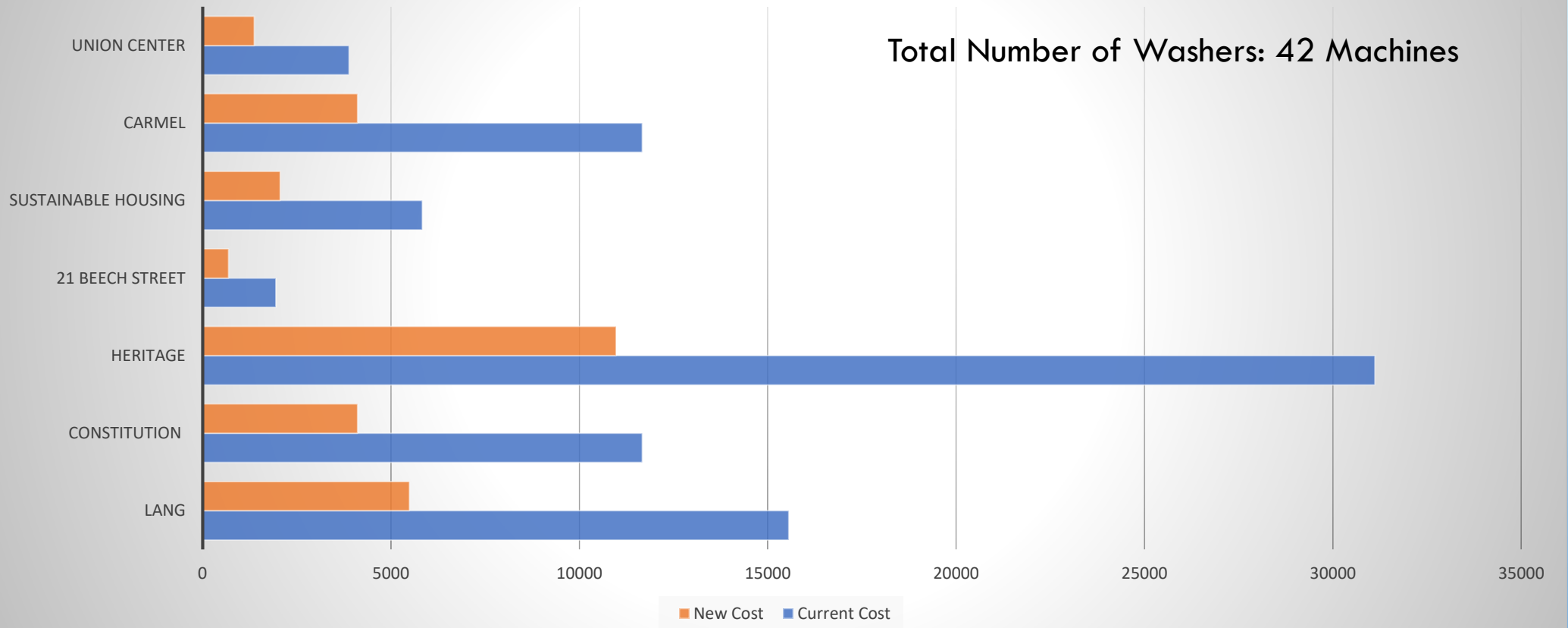
**SAMSUNG WF5300 FRONT LOADING**

- ENERGY STAR QUALIFIED
- VIBRATION REDUCTION

# COST ANALYSIS - WASHERS

## Yearly Cost Analysis (Washers)

Total Number of Washers: 42 Machines



# PAYBACK PERIOD (WASHERS)

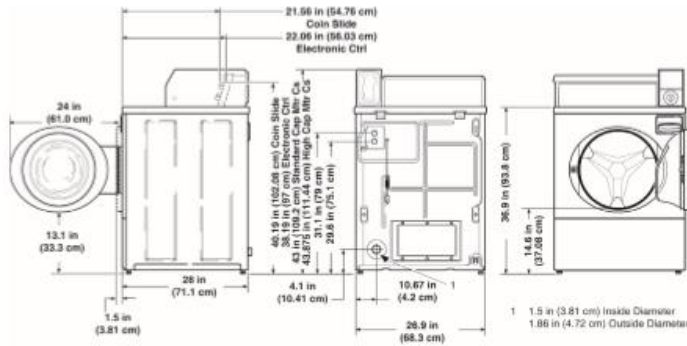
Model	Initial Investment	Net Savings	Payback Period (Years)
Kenmore	\$26,249.58	\$52,866.24	.50
Samsung	\$31,499.58	\$55,550.88	.57

- AMAZING PAYBACK PERIOD
- RELATIVELY LOW INITIAL INVESTMENT
- NET SAVINGS OUT THE WAZOO!

# CURRENT MODELS (DRYERS)

- SPEED QUEEN COMMERCIAL SINGLE LOAD DRYER

- LARGE FRONT LOAD DOOR
- QUIET, EFFICIENT BLOWER SYSTEM
- EASY TO CLEAN LINT TRAP







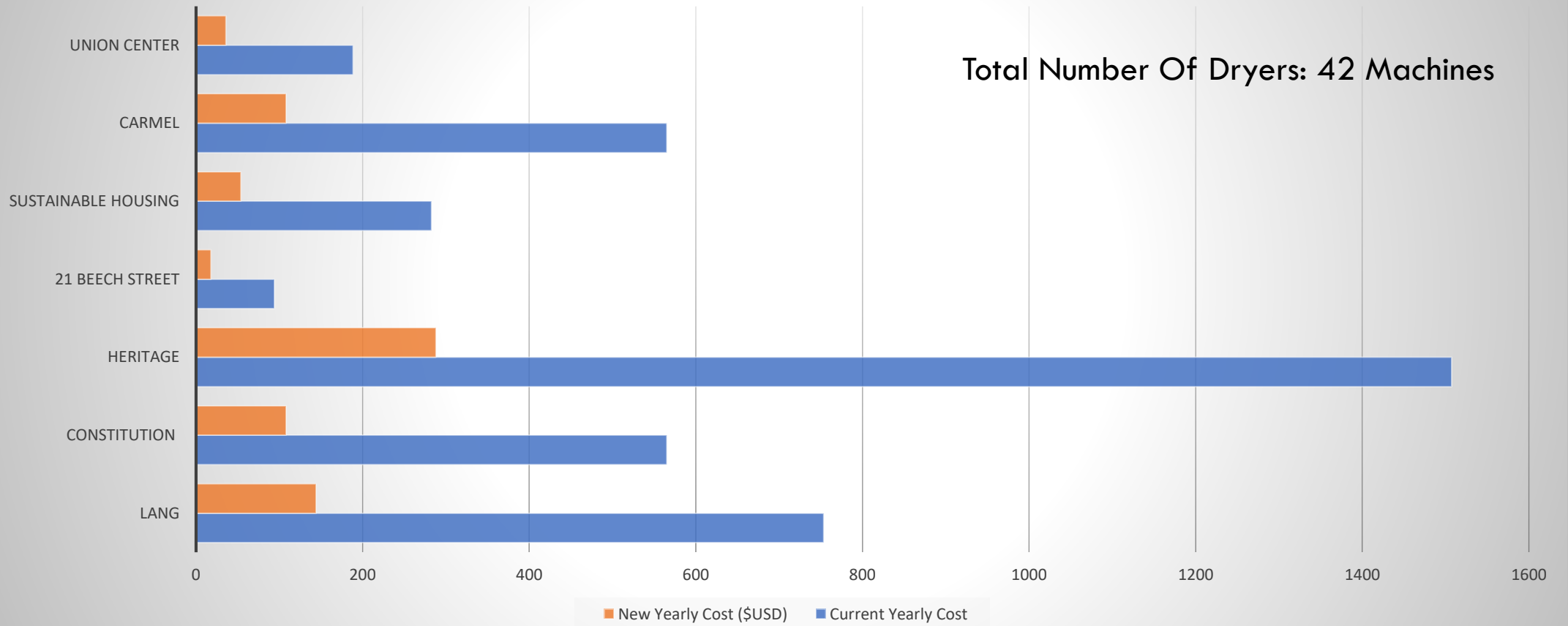
## REPLACEMENT MODEL (DRYERS)

- GENERAL ELECTRIC  
#GTD65EBPLDG
- RELATIVELY LOW  
ENERGY USAGE
- MULTIPLE  
PERSONALIZED  
SETTINGS

# COST ANALYSIS - DRYERS

## Yearly Cost Analysis (Dryers)

Total Number Of Dryers: 42 Machines



# PAYBACK PERIOD (DRYERS)

Model	Initial Investment	Net Savings	Payback Period (Years)
General Electric	\$31,478.58	\$3,200.40	9.84

- LONG PAYBACK PERIOD
- RELATIVELY LOW INITIAL INVESTMENT
- LOW NET SAVINGS

# WHAT DOES THIS MEAN?

## PAYBACK PERIODS

- THE PAYBACK PERIOD OF REPLACING WASHERS IS LOW
- THE PAYBACK PERIOD OF REPLACING THE DRYERS IS HIGH

## BENEFITS OF OUR PROVIDER

- CONTRACT WITH GREAT LAKES LAUNDRY COMPANY DETAILS A RENEWAL POLICY (NEW MACHINES)
- NEWER MODELS ARE MORE PRONE TO MAINTENANCE
- GOOD RELATIONSHIP AND PRICES WITH THE COMPANY

## BENEFITS OF UPDATING

- MORE MARKETABLE RESIDENCE HALLS
- IMPROVING BW'S SUSTAINABLE IMAGE
- THEORETICALLY LOWER COST PER YEAR

# APPENDIX

- [HTTPS://1DRV.MS/X/S!AM6-N3TRIMJUHPAGWBL2ZDCVOBX](https://1drv.ms/x/s!AM6-N3TRIMJUHPAGWBL2ZDCVOBX)
- [HTTPS://1DRV.MS/B/S!AM6-N3TRIMJUHKLGRAEIXENF8B5O](https://1drv.ms/b/s!AM6-N3TRIMJUHKLGRAEIXENF8B5O)
- [HTTPS://1DRV.MS/B/S!AM6-N3TRIMJUHKOOP4IEUNUDC -C](https://1drv.ms/b/s!AM6-N3TRIMJUHKOOP4IEUNUDC-C)