



VILLAGE OF DOBBS FERRY BOARD OF TRUSTEES
WORKSHOP AGENDA

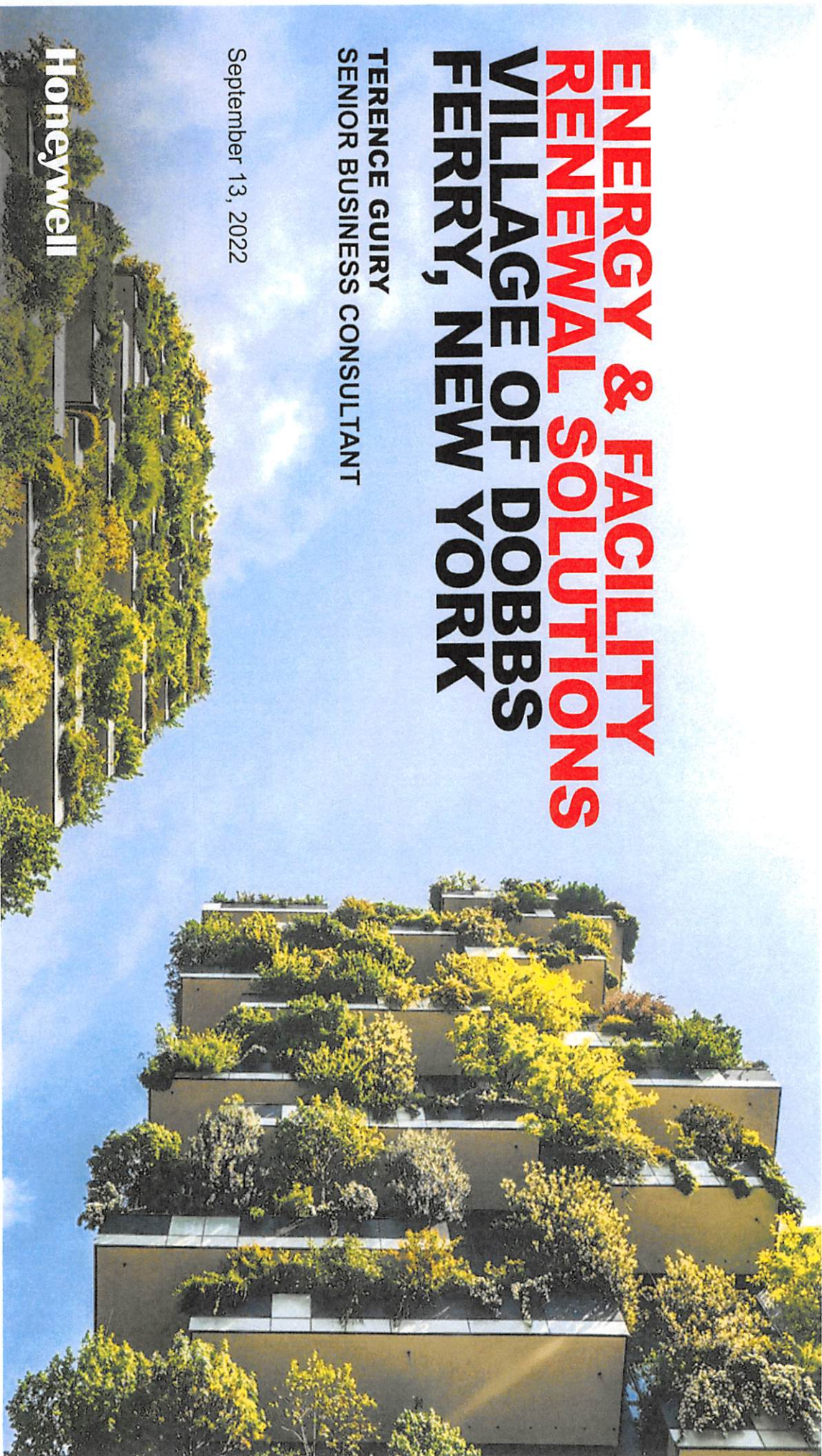
MEETING DATE: SEPTEMBER 13, 2022
AGENDA ITEM SECTION: PRESENTATIONS
AGENDA ITEM NO. :
DEPARTMENT:
AGENDA ITEM: HONEYWELL
ITEM BACKUP DOCUMENTATION: 1. HONEYWELL PRESENTATION ON ENERGY & FACILITY RENEWAL SOLUTIONS

ENERGY & FACILITY RENEWAL SOLUTIONS **VILLAGE OF DOBBS FERRY, NEW YORK**

TERENCE GUIRY
SENIOR BUSINESS CONSULTANT

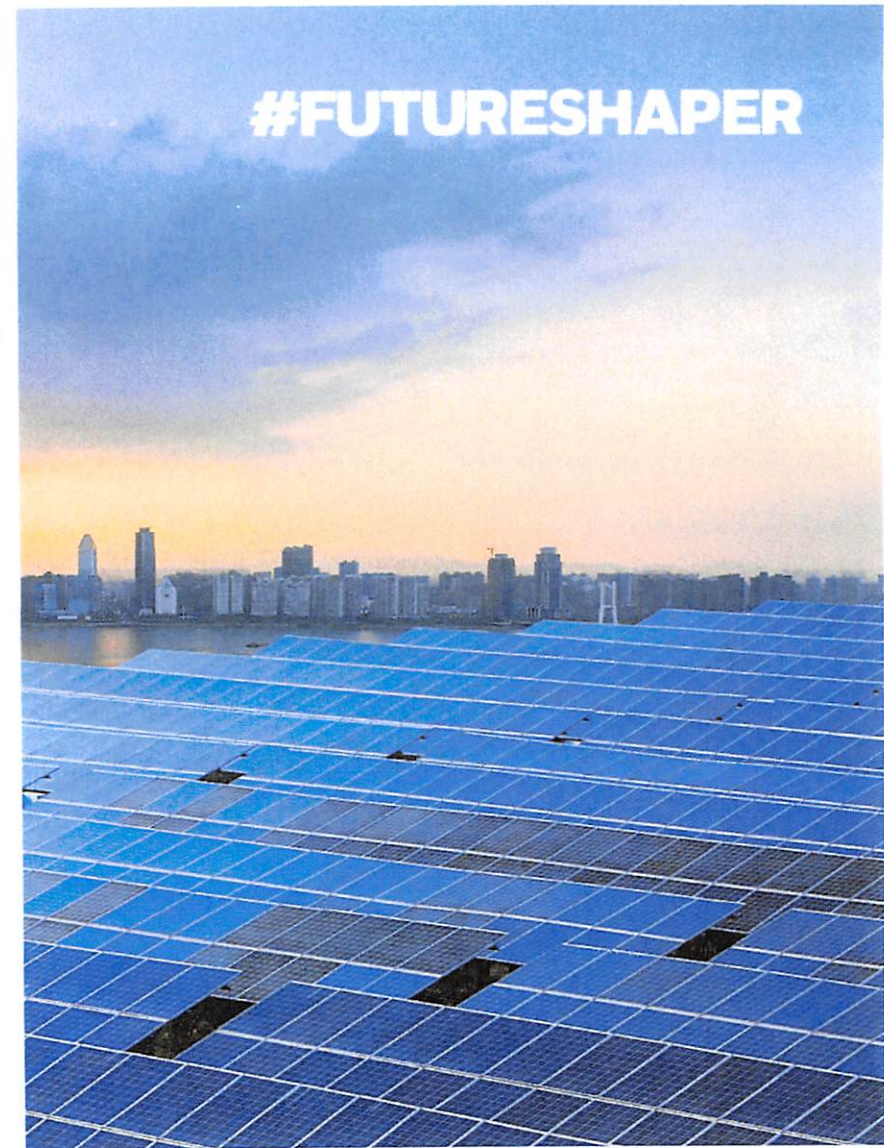
September 13, 2022

Honeywell



AGENDA

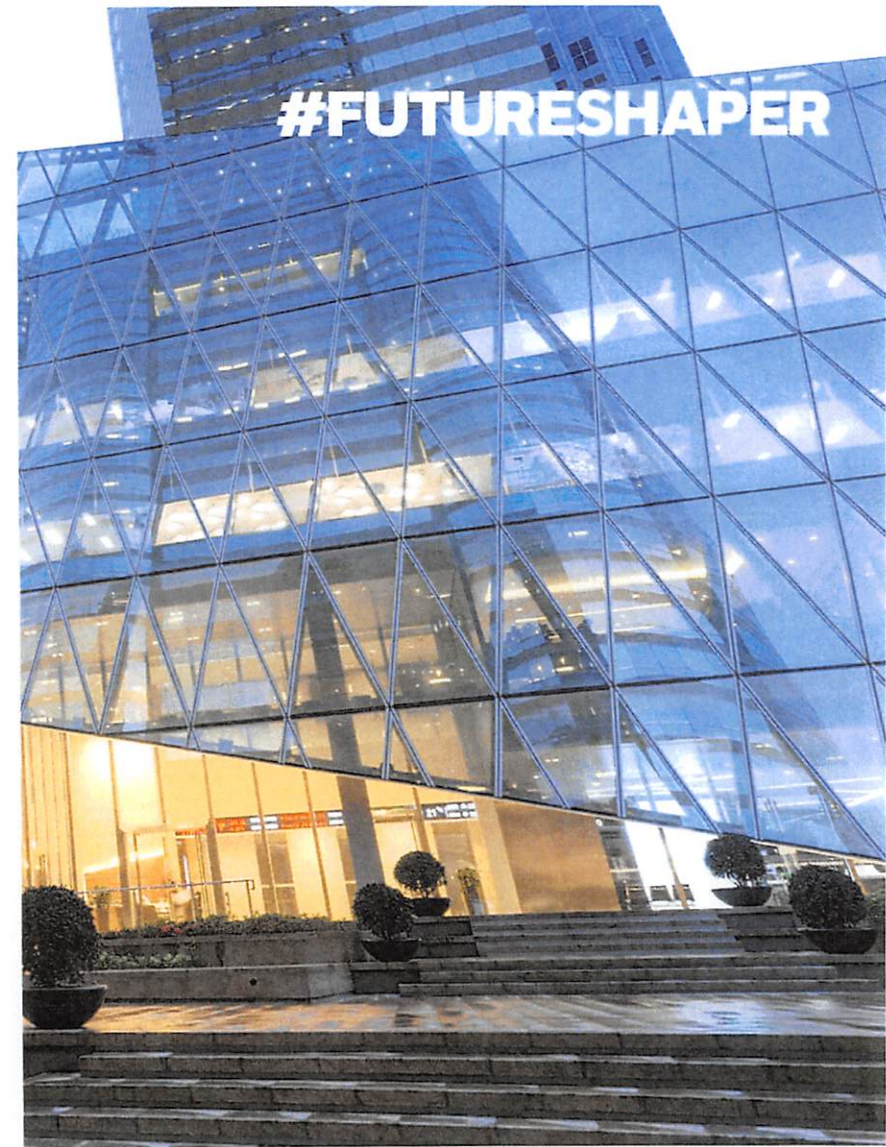
1. Introduction
2. Growing Municipal Challenges / Concerns
3. What is Energy Performance Contracting (EPC)?
4. Utility Analysis
5. Program Overview
6. Environmental Impact
7. Timeline
8. Q&A



INTRODUCTION

Terence Guiry

- Senior Business Consultant, Honeywell Energy Services Group
- Leading NYS Public Sector Team
- 35+ Years In The Energy Conservation & Building Automation Industry
- BS Electrical Engineering, Rensselaer Polytechnic Institute



HONEYWELL BUSINESS HISTORY & QUALIFICATIONS

A U.S. Business since 1886

- Dedicated to Energy Efficiency - 50% of Products and Services are Energy-Efficiency Related
- \$32.6 Billion in 2020 Sales
- 133,000 Worldwide Employees – 1,105 in New York State
- Delivered over 1100 EPC Projects with a Total Value of more than \$3.5 Billion
- Deeply Committed to Local Job Creation & the Community
- World's Most Admired Companies (Fortune)
- World's Most Ethical Companies (Ethisphere Institute)



Making Your World Safer, More Comfortable, and Energy Efficient

A WORLDWIDE LEADER IN ENERGY MANAGEMENT

- 42 years as an Energy Services Company (ESCO)
- 7,000+ Energy Conservation Projects
- \$6 Billion per year in Energy & Operational Savings
- Industry Recognition – Green Excellence of the Year Award (Frost & Sullivan)
- Four Strategic Business Groups



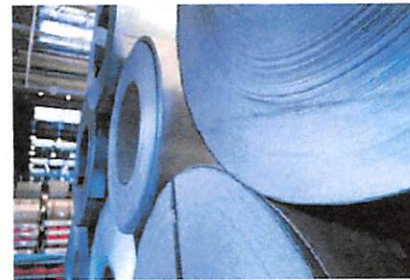
BUILDING TECHNOLOGIES

Over 100 years ago, we defined energy efficiency by automating indoor comfort. Today, we redefine it in more than 10 million buildings.



SAFETY AND PRODUCTIVITY

Each year, half a billion workers are safer and more productive with voice-enabled software, barcode scanners, mobile computers, and protective equipment.



PERFORMANCE MATERIALS AND TECHNOLOGIES

We make high-quality, high-performance chemicals and materials.

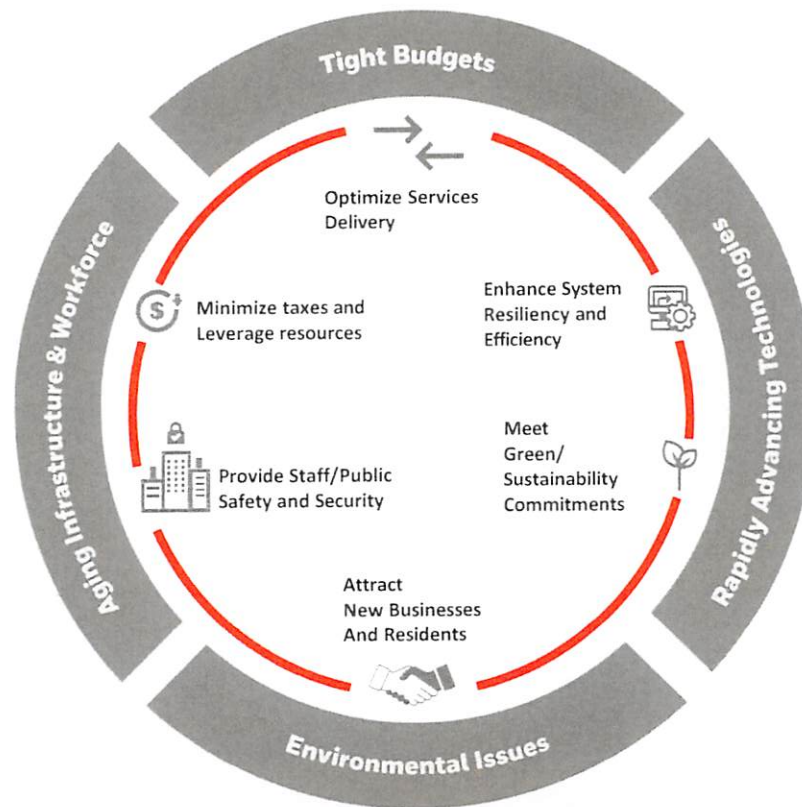


AEROSPACE

More fuel-efficient aircraft. Safer skies and airports. More direct and more on-time flights.

Since 2010, Honeywell has Deployed 2100+ Energy Efficiency Projects at its Own Facilities and Reduced its Greenhouse Gas Emissions by over 65%

CURRENT SITUATION



Municipalities Under Increasing Pressure

WHAT IS PERFORMANCE CONTRACTING?

- Proven Method to Achieve Targeted Infrastructure Upgrades While Minimizing Project Risk
- Design Build, Performance Based Construction Method
- Comprehensive Turnkey Service
 - Energy Infrastructure Auditing
 - Engineering and Design
 - Financing
 - Construction and Commissioning
 - Training
 - Maintenance
 - Measurement and Verification of Results / Performance Criteria
 - Guaranteed Results
- Energy Service Company (ESCO) is Responsible for Project Risks

All Project Components Delivered with a Single Contract

CONTRACTING METHOD COMPARISON

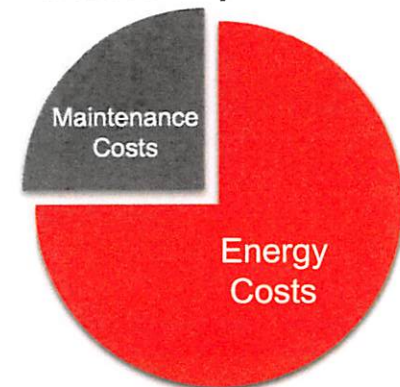
Factor	Bid/Spec	Performance Contracting
Financial	Capital/Bond	Current Budget
Contract Team	Only During Installation & Warranty	1-20 Years
Upfront Fees	Yes	No
Technology & Contractor Selection	Low bid	Long-Term Value & Performance
Guarantee	No	Financial & Performance



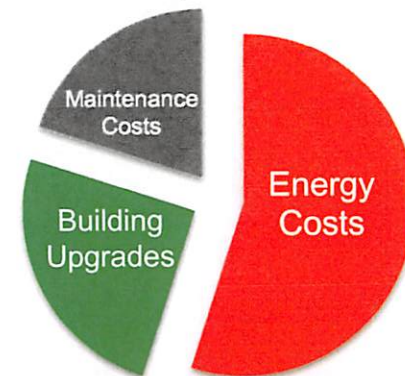
PERFORMANCE CONTRACTING VALUE

- **Achieve Priority Infrastructure Upgrades**
 - Address deferred maintenance and allow capital budget to be focused on other priorities
 - Select technologies and contractors based on long-term value not only lowest first-cost
- **Budget-Neutral, Fiscally-Responsible Funding Mechanism**
 - Upgrades paid for with energy & operational savings
 - Tax increases avoided by using alternative funding
 - No up-front funding required
- **Peace-of-Mind**
 - Guaranteed savings and performance throughout the life of the contract
 - Single point of responsibility for results
 - Enable proactive vs. reactive maintenance
- **Community/Environmental Leadership**
 - Showcases commitment to environmental stewardship and energy-efficiency
 - Improved building comfort
 - Enhanced staff productivity & health

Before Improvements



After Improvements

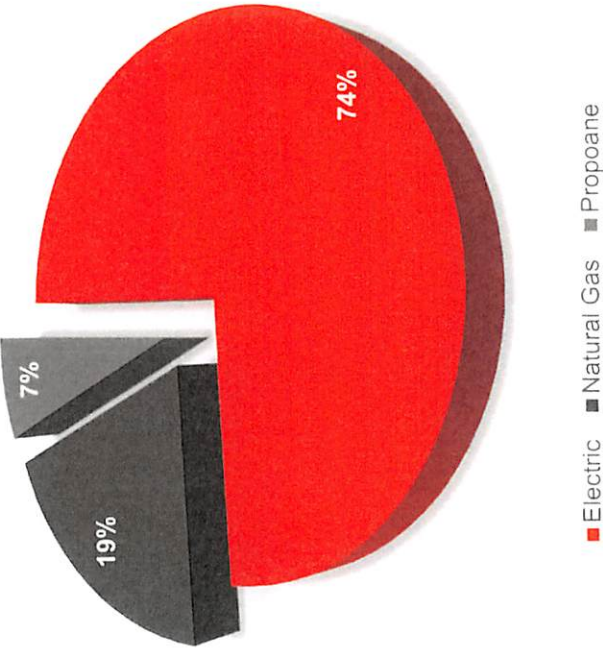


Proven Turn-Key Method to Achieve Results

UTILITY ANALYSIS

Utility	Annual Baseline Cost
Electric	\$214,373
Natural Gas	\$55,738
Propane	\$20,286
Total	\$290,397

Village Buildings & Street
Lights – Utility Cost by Type



PROGRAM OVERVIEW

Total Price

- \$3,995,000 – fixed cost, no change orders on proposed scope

Grants / Utility Rebates & Credits

- Approximately \$383,238 (\$100,000 NYSERDA Grant, \$25,000 NYS DCJS Grant, \$38,003 in Con Ed Rebates, and \$220,235 in NYPA Credit)

Savings

- \$114,977 / year

Financing

- RFP process completed June 8th. Bank of America low bidder @ 3.2%. Payments start after the installation period to line up with the guarantee period ('23-'24 FY)

ECMs (Energy Conservation Measures)

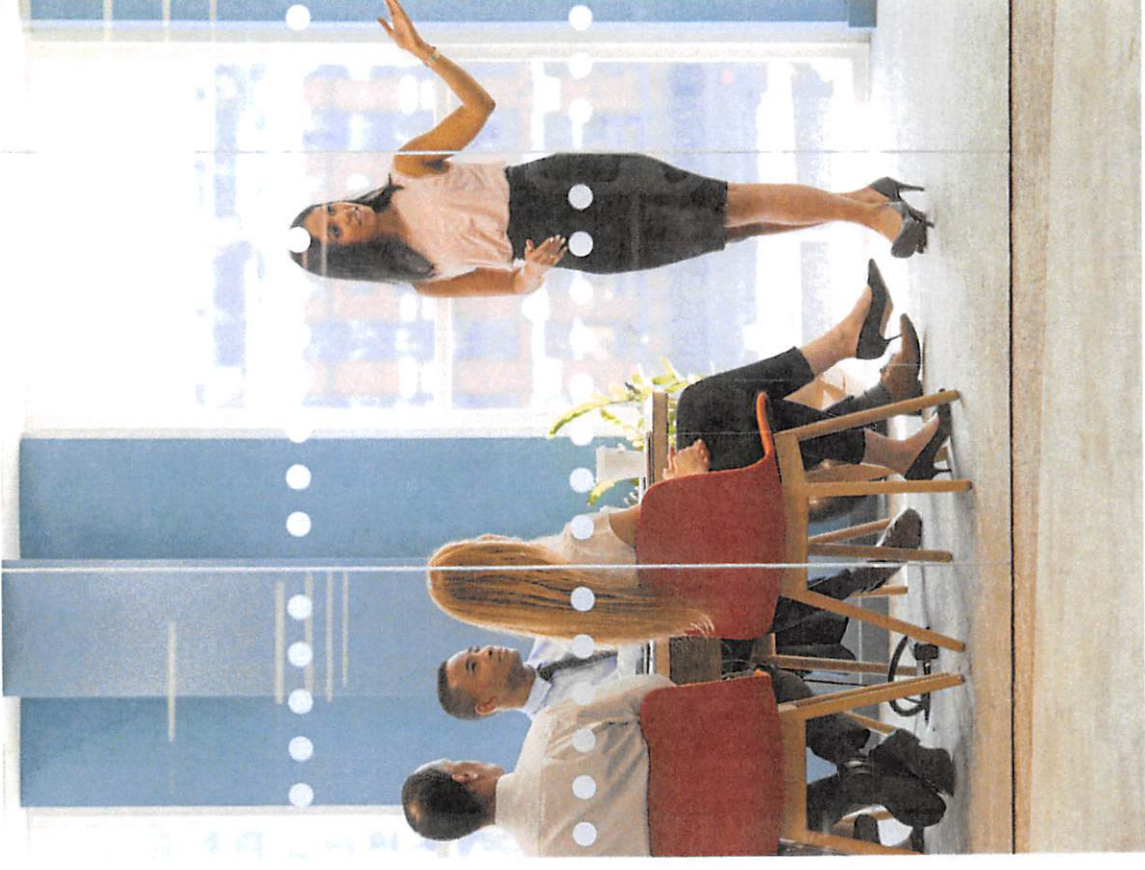
- Thirteen (13) proposed measures – LED lighting and lighting controls upgrade, street lighting upgrades, condensing unit replacements, building management system upgrades, building envelope improvements, pipe insulation, desktop computer power management, roof replacement, variable refrigerant flow heat pumps, domestic hot water upgrades, window replacements, rear entrance replacement, and solar photovoltaic system



PROGRAM OVERVIEW

Revisions From Initial Proposed Contract

- Replacement of Village Hall windows has been added to the scope
- Replacement of Village Hall rear entrance (double door + all glass) has been added to the scope
- Prior proposed mechanical scope at Village Hall has been replaced with a complete VRF system thus eliminating all fossil fuel usage for both heating and domestic hot water needs – aligns well with the NYS Stretch Energy Code
- Replacement of server room AC split systems has been added to the scope
- Removal of existing rooftop units and their associated curbs has been added to the scope – this allows for a full roof replacement
- A 26kW solar PV roof mounted system at Village Hall has been added to the scope – taking advantage of the recent VDER utility tariff changes



PROGRAM OVERVIEW

#	ECM	Public Library	Village Hall	Memorial Park Building	DPW Office	Ambulance Corps. Building	Ogden Engine Company	Pool House and Offices at Gould Park	Embassy Club	Street Lighting
1	LED Lighting and Lighting Controls Upgrade	X	X	X	X	X	X	X	X	
2	Street Lighting Upgrades									X
3	Condensing Unit Replacement		X							
4	Building Management System Upgrades	X	X	X	X	X	X	X	X	
5	Building Envelope Improvements	X	X	X		X	X		X	
6	Pipe Insulation	X				X			X	
7	Desktop Computer Power Management	X	X	X	X	X	X			
8	Roof Replacement		X							
9	Variable Refrigerant Flow Heat Pumps		X							
10	DHW Upgrades		X							
11	Window Replacements		X							
12	Rear Entrance Replacement		X							
13	Solar Photovoltaic System		X							



ENVIRONMENTAL IMPACT

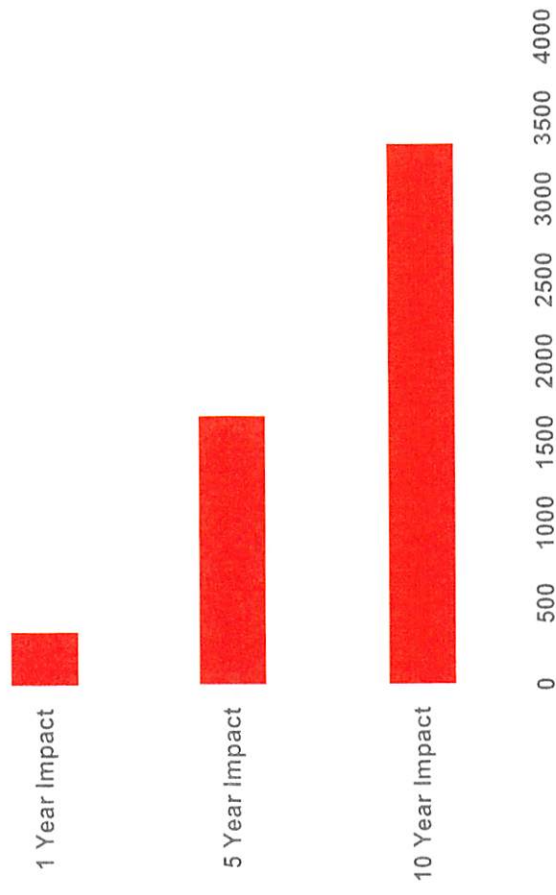
ECM #	Description	Electric Savings [kWh]	Natural Gas Savings [Therms]	Fuel Oil Savings [Gallons]	Propane Savings [Gallons]	CO ₂ e Emissions Reduction [Metric Tons]
1	LED Lighting and Lighting Controls Upgrade	88,600	(95)	-	(101)	21.2
2	Street Lighting Upgrades	147,464	-	-	-	37.1
3	Condensing Unit Replacement	551	-	-	-	0.1
4	Building Management System Upgrades	27,388	4,268	-	818	34.4
5	Building Envelope Improvements	2,631	583	-	-	3.8
6	Pipe Insulation	-	979	-	-	5.2
7	Desktop Computer Power Management	8,850	-	-	-	2.2
8	Roof Replacement	1,324	-	-	-	0.3
9	Variable Refrigerant Flow Heat Pumps	(86,795)	9,604	-	-	29.2
10	DHW Upgrades	(5,158)	896	-	-	3.5
11	Window Replacements	886	-	-	-	0.2
12	Rear Entrance Replacement	211	-	-	-	0.1
13	Solar Photovoltaic System	32,484	-	-	-	8.2
TOTAL		218,438	16,235	-	717	145.4

Greenhouse Gas Emissions Reduction		
Metric Tons of CO ₂ e Saved per Year	145.4	Metric tons

ENVIRONMENTAL IMPACT

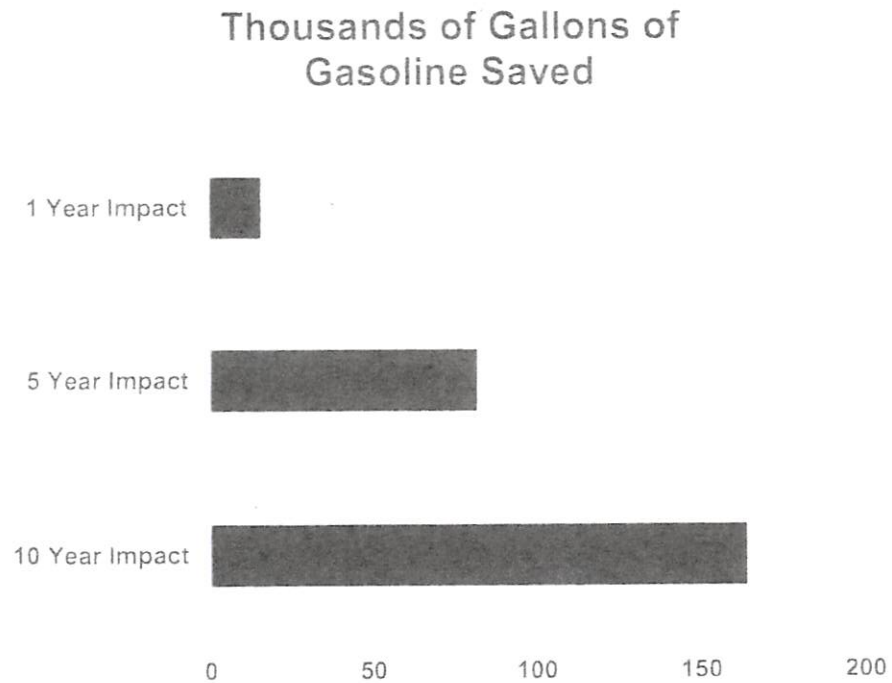
TOTAL METRIC TONS OF CO_{2E} SAVINGS IS EQUIVALENT TO...

Barrels of Oil Saved



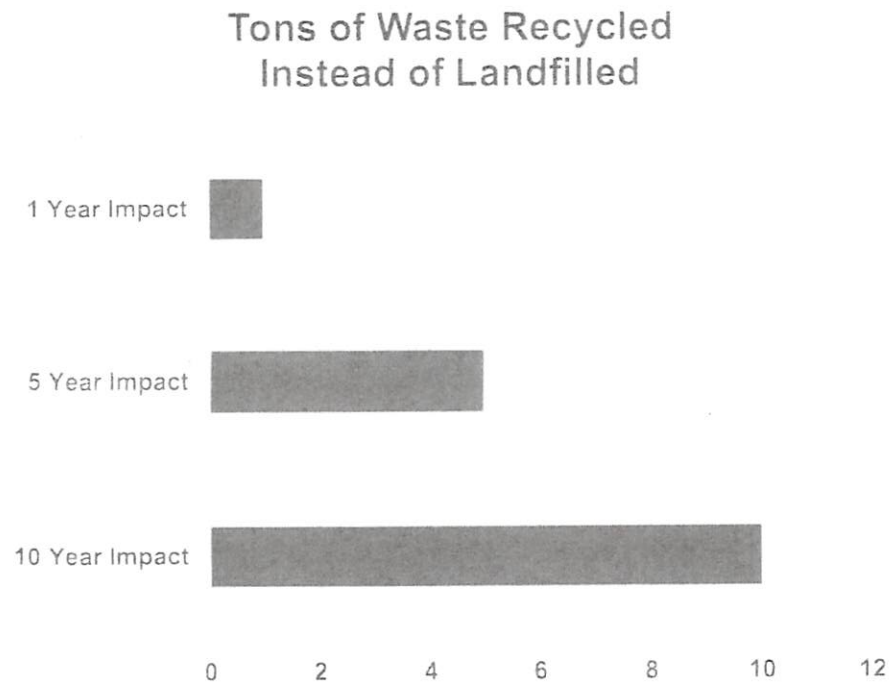
ENVIRONMENTAL IMPACT

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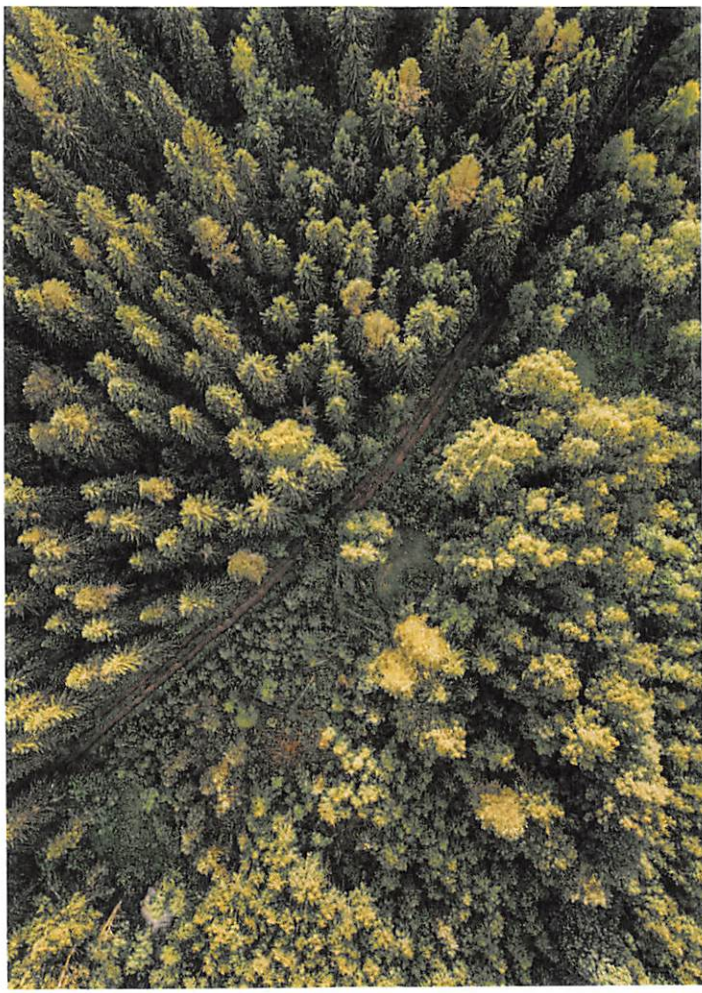
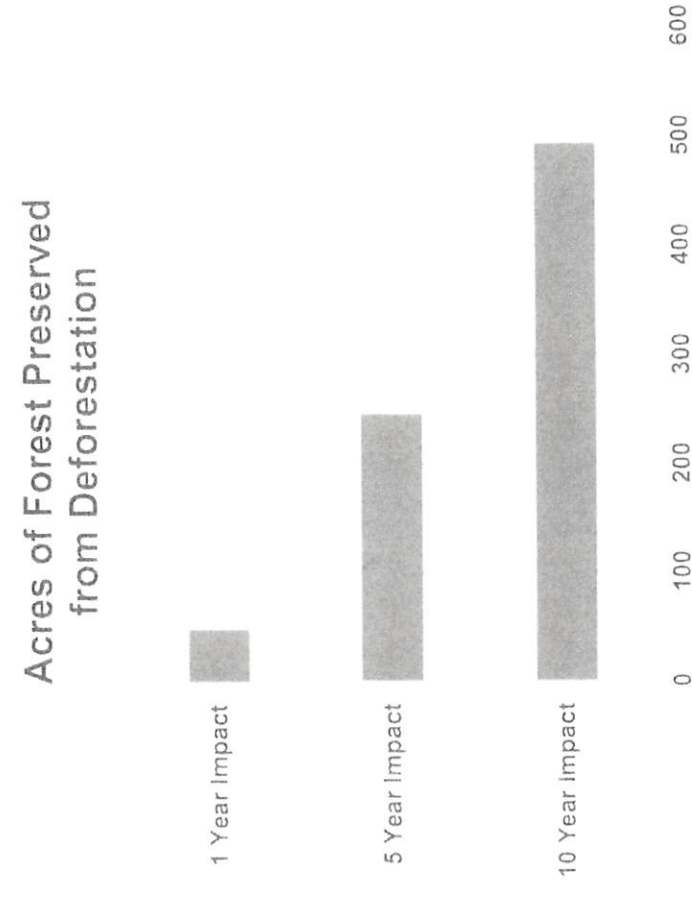
ENVIRONMENTAL IMPACT

TOTAL METRIC TONS OF CO_{2E} SAVINGS IS EQUIVALENT TO...



ENVIRONMENTAL IMPACT

TOTAL METRIC TONS OF CO₂E SAVINGS IS EQUIVALENT TO...



TIMELINE

- Preliminary Audit to Assess Opportunity – **July '21**
- RFP to Select Energy Service Company (ESCO) – **Issued 11/22/2021 with responses due 12/13/2021**
- Board resolution to select Honeywell and authorization to proceed with the Comprehensive Energy Audit (CEA) – **12/30/2021**
- Complete Comprehensive Energy Audit (CEA) and Submit a Contract – **05/31/2022**
- Present Initial Contract to Board of Trustees – **06/14/2022**
- Submit Revised Contract based on Board and Village Staff Feedback - **08/15/2022**
- Present Revised Contract to Board of Trustees - **09/13/2022**
- Board Approval to Execute and Proceed with the Contract – **09/27/2022**
- Close on Financing – **10/11/2022**
- Implement the Work – **October '22 through July '23**
- Commence the Guarantee and the required Measurement & Verification (M&V) – **August '23**



QUESTIONS / DISCUSSION

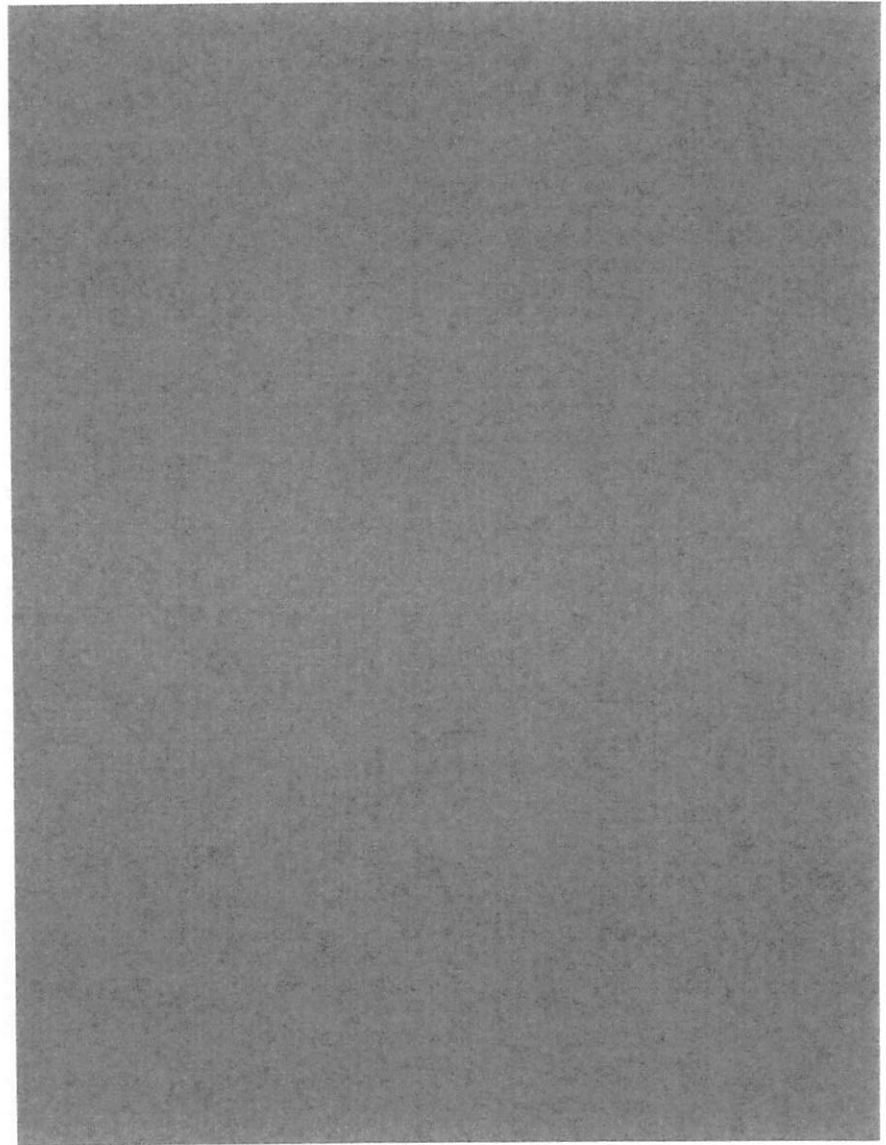
Terence Guiry

Senior Business Consultant

Honeywell Energy Services Group

Cell: 860-992-6369

Email: terence.guiry@honeywell.com



**THANK
YOU**

Honeywell