

COLD STORAGE ROI CALCULATOR TEMPLATE

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1. PURPOSE AND SCOPE

1. This Return on Investment (ROI) Calculator Template (the "Calculator") is provided by Polar Dynamics Robotics, Inc. ("PDR") to assist potential clients in evaluating the financial benefits of implementing PDR's autonomous mobile robot solutions in cold storage environments.
2. The Calculator is designed specifically for temperature-controlled facilities operating between +4 C and -30 C and incorporates PDR's proprietary efficiency metrics based on IceNav(TM) technology deployment data.

2. INPUT PARAMETERS

1. Facility Specifications

- Total square footage of cold storage area
- Average maintained temperature
- Current annual energy consumption (kWh)
- Number of temperature zones
- Ceiling height and rack configuration

2. Current Operations Metrics

- Annual labor hours for material movement
- Current throughput (pallets/hour)
- Worker compensation rates
- Safety incident history
- Equipment maintenance costs

3. Automation Requirements

- Number of PDR units proposed
- Operating hours per day
- Integration requirements

- Backup power specifications
- Network infrastructure needs

3. CALCULATION METHODOLOGY

1. Direct Cost Savings

Annual Labor Savings = (Current Labor Hours Hourly Rate) -
(Projected Labor Hours Hourly Rate)

Energy Efficiency Gain = (Current Energy Cost)
(PDR Efficiency Factor[0.85])

Maintenance Delta = (Current Equipment Maintenance) -
(PDR Maintenance Package)

2. Productivity Improvements

Throughput Enhancement = (PDR Units Avg Moves/Hour
Operating Hours 350 Days) -
(Current Annual Throughput)

Space Utilization Gain = (Optimized Cubic Footage)
(Storage Value/Cubic Foot)

3. Risk Mitigation Value

Safety Impact = (Historical Incident Costs Risk Reduction Factor)

Compliance Benefit = (Current Compliance Costs 0.75)

4. ROI COMPONENTS

1. Capital Investment

- Initial PDR unit costs
- Installation and integration
- Infrastructure modifications
- Training and deployment
- Software licensing

2. Operational Benefits

- Reduced labor costs
- Increased throughput
- Energy savings
- Maintenance reduction
- Space optimization
- Safety improvements

3. Time-Based Analysis

- 3-year ROI projection
- 5-year TCO comparison
- Payback period calculation
- NPV analysis at 8% discount rate

5. ASSUMPTIONS AND LIMITATIONS

1. The Calculator assumes:

- Standard facility conditions
- Regular maintenance adherence
- Proper implementation
- Typical usage patterns
- Standard integration requirements

2. Exclusions:

- Extreme temperature variations beyond specified range
- Non-standard facility configurations
- Custom integration requirements

- Specialized safety protocols
- Unique regulatory requirements

6. LEGAL DISCLAIMERS

1. This Calculator is provided for illustrative purposes only and does not constitute a guarantee of results. Actual ROI may vary based on specific implementation conditions, operational variables, and market factors.
2. PDR makes no warranties, express or implied, regarding the accuracy of calculations or their applicability to specific situations.
3. Users should verify all assumptions and consult appropriate financial and technical advisors before making investment decisions.

7. CONFIDENTIALITY

1. This Calculator contains proprietary methodologies and trade secrets of PDR and is provided under strict confidentiality obligations.
2. Recipients are prohibited from sharing, copying, or distributing this Calculator without PDR's express written consent.

8. VALIDATION AND APPROVAL

APPROVED FOR USE:

By:

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Date: _

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