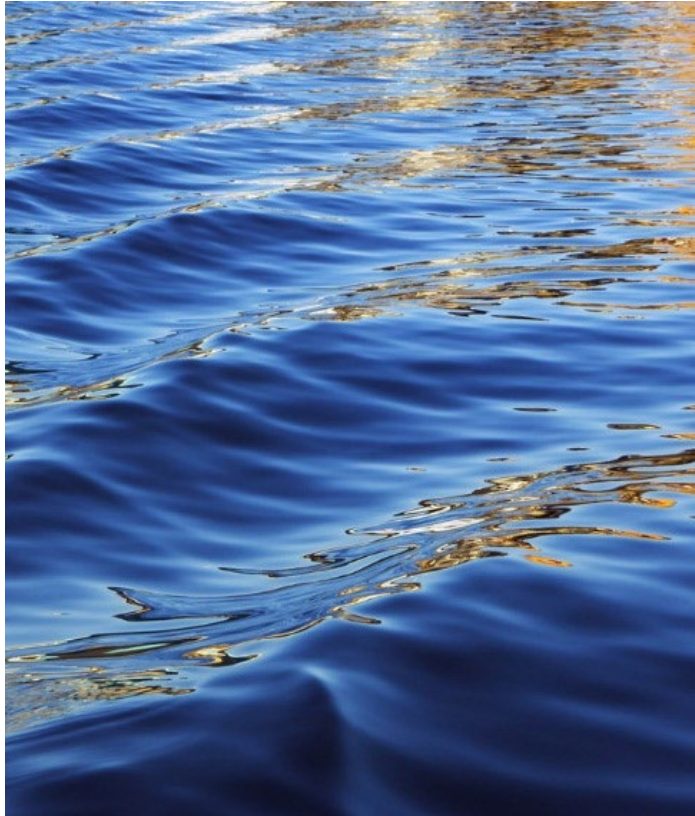


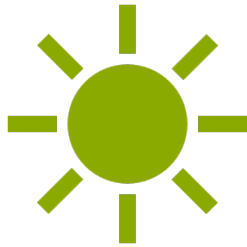


Charlotte Energy Modernization

Fiscal and Environmentally Responsible Approach
To Meeting The Town Energy Needs
And Achieving the Town Plan Energy Mandate



What We Are Asking From The Selectboard?



Consideration & Feedback of
Proposed Concept

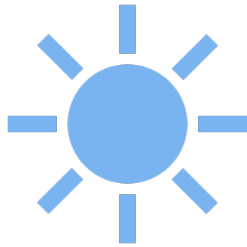


Legal & Fiscal Insights /
Resources / Support

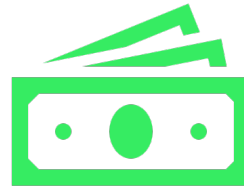


Support To Proceed & Engage
Resources & Prioritization

Why Now?



June 2024 Legislation Changed
The Economics Of Solar
Implementations



Federal Incentives Are Available
For Now



Commitment to Town Plan Energy
Goals Require More Immediate
Action

June 2024 Legislation Changed The Economics Of Solar Implementations

Virtual Net Metering Is Going Away

- Allows For An Array On Once Parcel To Generate Energy For Another
- There is One Year (plus extension) To Grandfather A System Into Production

Rates Changed For Credits

- The Financial Credit For Overproduction Is Being Reduced
- Application For Favorable Rate Filed With 5 Potential CPGs

Federal/State Incentives Are Available For Now

Infrastructure Reduction Act

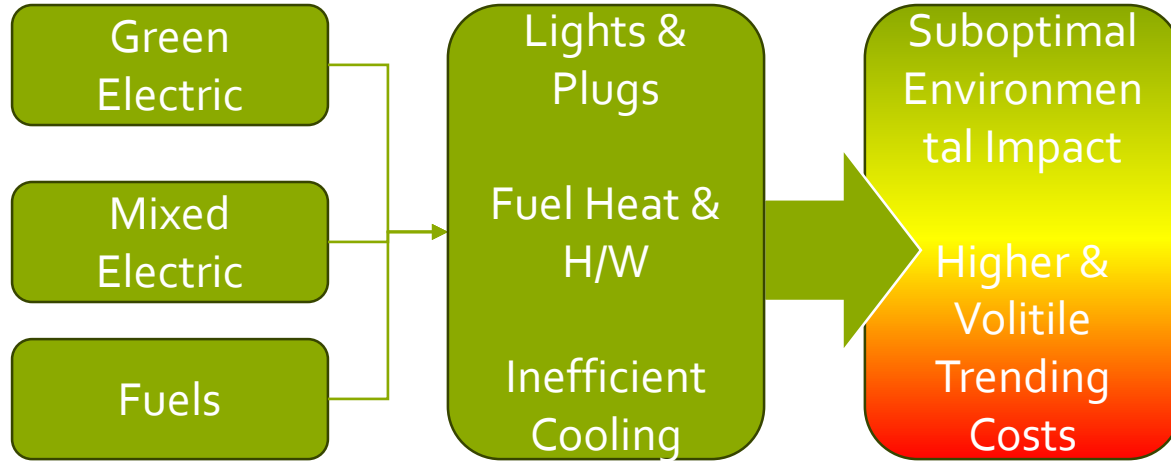
- Substantial Rebates Possible***

Capital Equipment

- Arrays
- Heat Pumps
- Water Heaters
- Temperature / Humidity Control...

*** When outside funding is used for financing or "Direct Pay" is exercised by the town

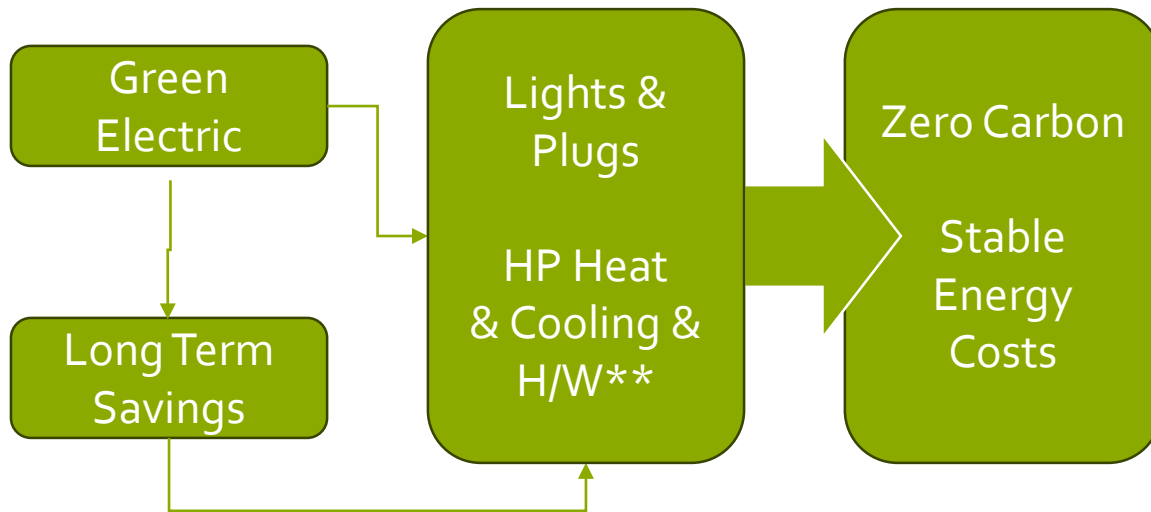
Status Quo



Conceptual Approach:

To present a sustainable solution for replacing existing fuel heating and air conditioning systems using savings from solar energy

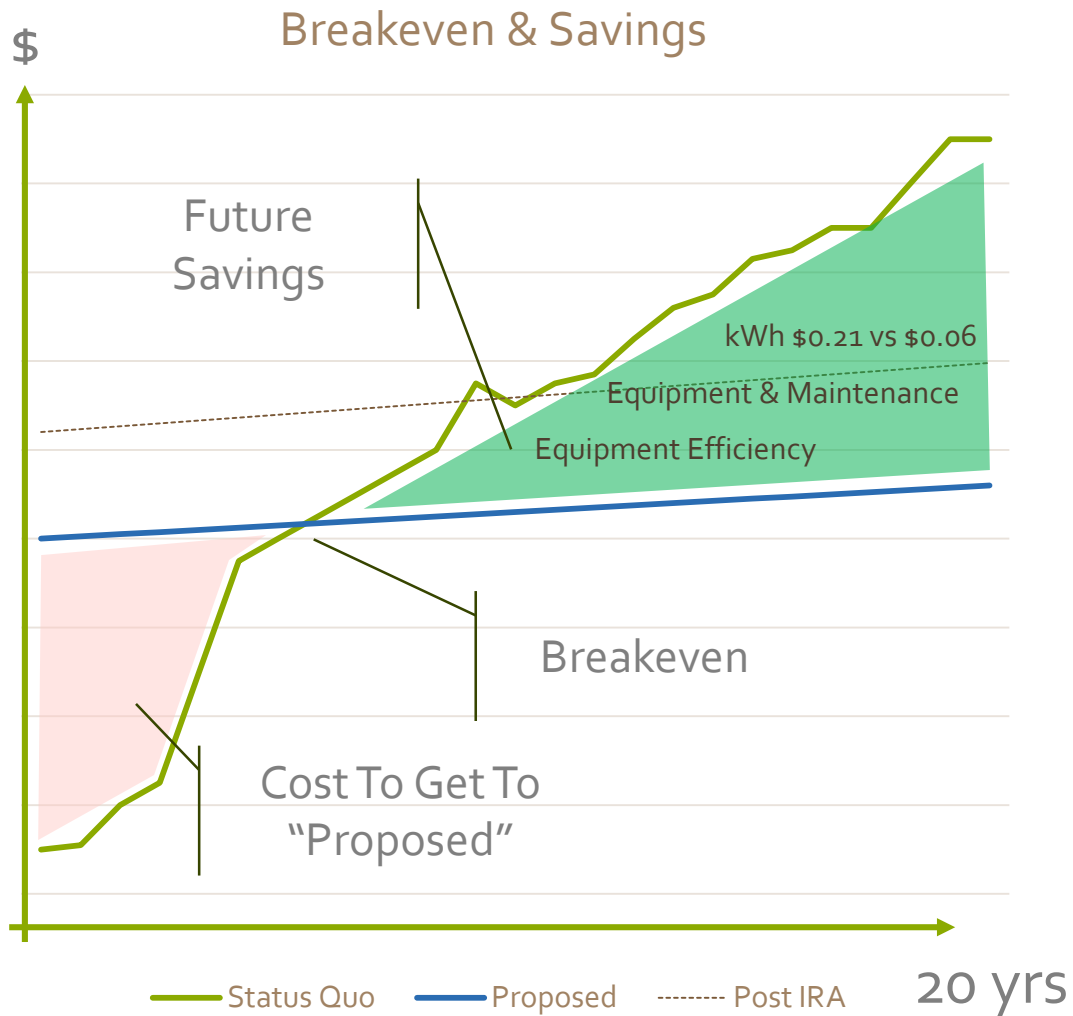
Proposed 2025



Main Objective:

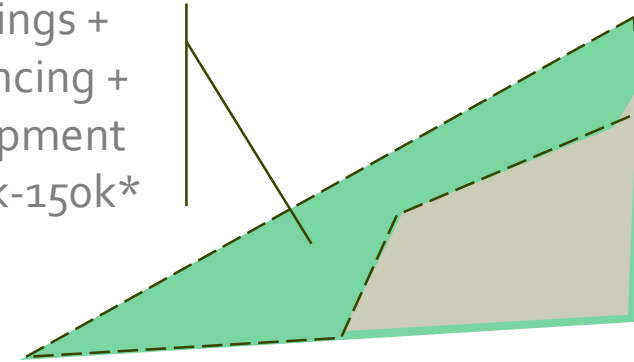
To Meet Town and State Green Energy Goals While Reducing Energy Reliance, Cost and Price Volatility

** When implemented, weatherization choices are also typically evaluated / implemented



Financial Puzzle

Savings +
Financing +
Equipment
\$120k-150k*



Finance Up-Front Costs with "Future Savings" by:

- Outside Investment
- Local Investment
- Green Loans
- Bonding

*Very rough conversion estimated savings over 20 years with green benefits realized immediately



Financial Components

Cost of Implementation:

Initial costs for solar installation and HVAC equipment replacements

Project Savings Projections:

Projected savings over time from reduced energy costs

Incentives/Rebates/Taxes:

Professional Analysis

Investment Analysis:

Rate of Return

Breakeven

Buy-out scenario

Risk vs Reward

Investor Sentiment Assessment:

Project Bankability



Benefits

Environmental Impact:

Addressing the town mandate for greener energy solutions

Cost Savings:

Stabilization / Reduction in energy costs from public utilities

Efficiency:

Increased efficiency of heating and cooling systems

Comfort:

Increased capability to provide quality indoor climate in extreme conditions

Community Investment:

Possible investment model that benefits residents

Community Leadership:

Be a model leader in VT



Implementation Phases

Sequencing:

- Information Gathering
 - Mechanical HVAC & Energy Use
 - Permitting & Constraints
 - Tax & Legal
 - Finance
- Engage Stakeholders
- Scope RFP & Potential Vendor Criteria
- Assess Sites & Bids
- Go / No-Go / Public Comms
- Contract(s) Award & Implementation

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Questions?

Thoughts & Reactions

Request Approval Of Using MERP Funding To Engage GreenEdge Energy Solutions LLC. (Motion Already Passed CEC)

Request To Change Energy Committee Name To Climate Action Committee To Better Focus Mission For The Future

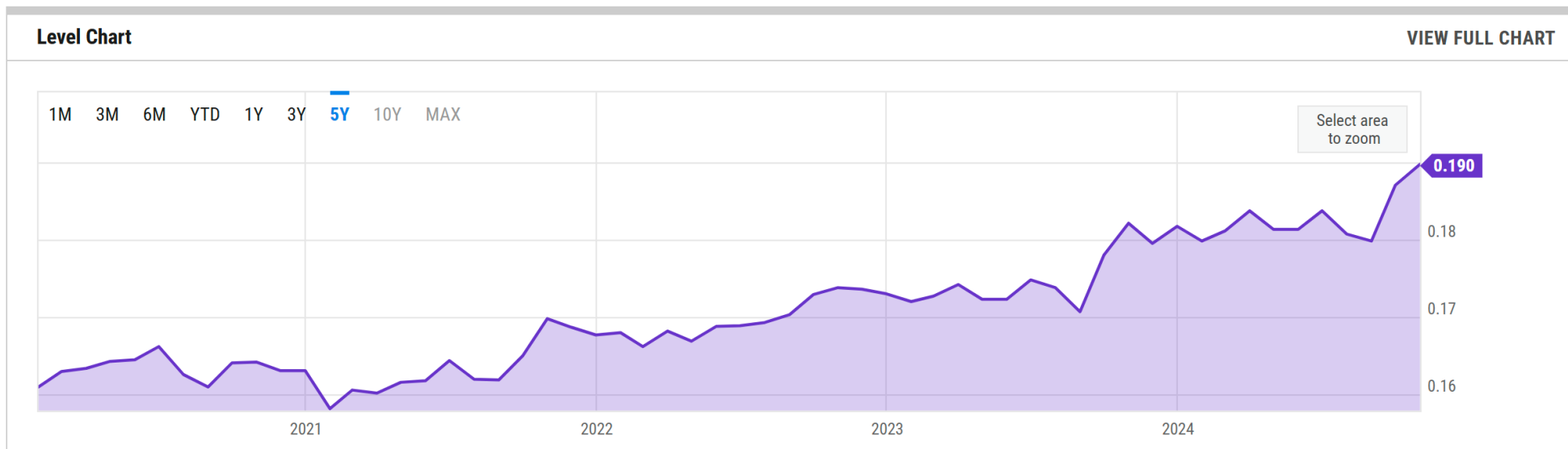
Boneyard & Templates

Vermont Electric Utility Retail Price (I:VEURP)

0.1897 USD/kWh for Oct 2024

Overview

Interactive Chart

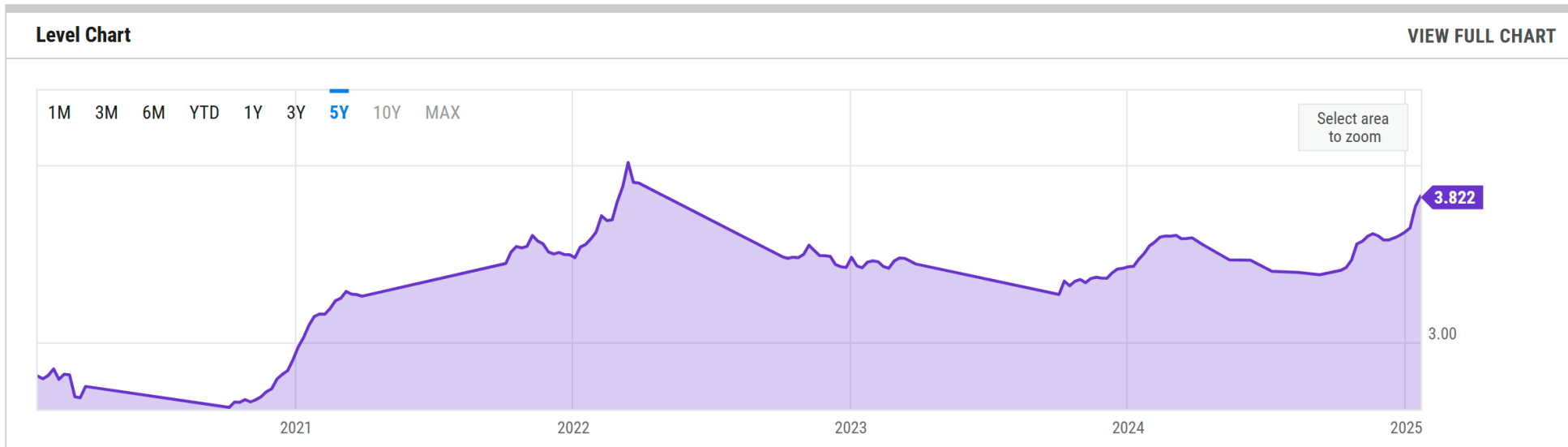


Vermont Residential Propane Price (I:VRPP)

3.822 USD/gal for Wk of Jan 20 2025

Overview

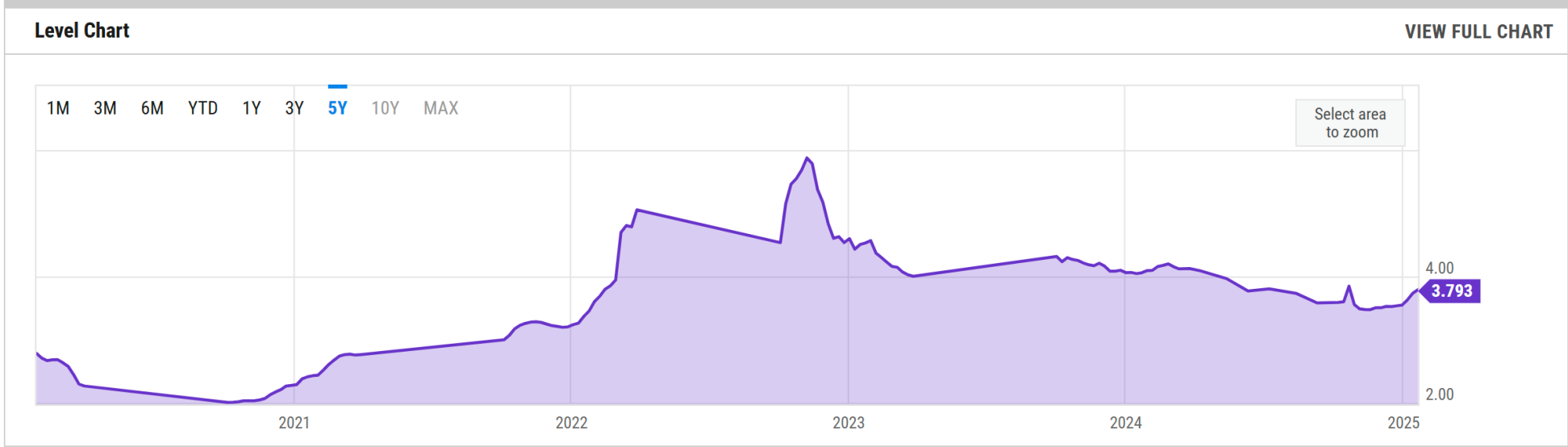
Interactive Chart



Vermont Residential Heating Oil Price (I:VRHOP)

3.793 USD/gal for Wk of Jan 20 2025

[Overview](#) [Interactive Chart](#)



Financing (Near Term)

Near Term Options

- **Green Banks:**
Loans and grants for sustainable projects
- **Local Investors:**
Engaging local & regional stakeholders
- **Resident Investors:**
Community investment opportunities

9 Month Implementation Window



Option	20 Yr Cost	20 Yr Diff	Annual Dif	Per Property Avg
Baseline		0	0	0
5 yr Buyout				
Own				

Option	Upfront	Years 0-5	Years 5-10	Years 10-20	Total
Baseline	0	0	0	0	0
5 yr Buyout	0				
Own					

Other Related Topics

- Assigning over-capacity electricity
- Possible Sites & Public Reactions
- Hinesburg model of outside investment & 5 yr buy-back