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STATE OF VERMONT
OFFICE OF THE STATE TREASURER

To: Elizabeth Pearce, State Treasurer

From: Matt Considine, Director of Investments

Subject: The Governor's assertion regarding coal exposure in the VPIC portfolio

Date: February 11, 2016

Review

In an op-ed after his State of the State speech[1] Governor Shumlin stated:

"In fact, had Vermont divested from coal assets in September 2012, our state pension funds would have an extra $11.5 million, according to testimony to the Legislature from Eric Becker of Clean Yield Asset Management."

Staff reached out to Clean Yield to understand the framework and assumptions used to arrive at the $11.5 million and we provide the following observations to those wishing to understand its context and the errors[2] involved.

Observations

With respect to the "Decarbonizer"[3] framework used, we note the following shortcomings:

- Only equities are considered.
- All companies generally considered "small cap" are excluded.
- Actual portfolio construction (e.g. actual portfolio weights) is ignored.
- Commingled strategies are excluded.
- Active management is ignored (e.g. the ability to invest in transforming companies is eliminated; portfolio is considered as a monolithic pool of assets rather than assets spread out across managers with different strategies and objectives).
- Quarterly rebalancing scheme that is introduced is arbitrary.
- "Fall-back" default assumptions are misleading (e.g. using free float for weights).
- Re-investment options are assumed to be practical (e.g. a $100 trillion portfolio can be rebalanced into "green" companies where the market in totality is less than $100 trillion).
- Transaction history is ignored.

[1] http://vtdigger.org/2016/01/20/peter-shumlin-vermont-should-divest-from-coal-and-exxonmobil-stocks/
[2] In a phone conversation Eric Becker acknowledged that he had found an error in his calculation and had disclosed that to the Governor's office sometime after his testimony to the Legislature.
[3] http://www.decarbonizer.co

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With respect to the specific Vermont example, we note the following:

- The time period chosen was arbitrary. One could take a similar approach and argue that there should be legislation prohibiting technology stocks or financial stocks or biotechnology stocks from the portfolio.
- The framework assumed a portfolio that did not exist in 2012 did in fact exist by using the portfolio from June 30, 2015.
- The wrong dollar amount was used for the separate account equity exposure ($1.17B vs $617mm).
- The wrong portfolio structure was used (6/30/2015 versus the end period point of 9/30/2015).
- There appear to be data errors in the original assessment (e.g. TECO does not appear to be in the Carbon Tracker list).

Even accepting the data quality issues and the erroneous rebalance scheme, but using corrected inputs, the Decarbonizer framework would indicate a loss of $1.0MM to $1.3MM versus the initial assessment of $11.5MM. (Parenthetically, the oft-quoted number of $77MM – attributed to Carbon Tracker investments – is also incorrect for the same reasons.)

Summary

As a counter-example to the accuracy of the Decarbonizer framework and the manner in which it is being used by some parties, we present the following example:

Portfolio A:
Equities

$1000 invested in Apple (ISIN: US6378331005)
$1000 invested in Rhino Resources Partners (Appalachian coal miner) (ISIN: US76218Y103)
$1000 invested in BlackRock Energy & Resources Fund (Ticker: SSGRX)
$1000 invested in Fidelity Select Energy Fund (Ticker: FSENX)
$1000 invested in Vanguard Energy Fund (Ticker: VGENX)
$1000 invested in Invesco Energy Fund (Ticker: IENAX)

Fixed Income

$1000 Cloud Peak (coal company) note (ISIN: US18911MAD39)
$1000 Consol Energy (coal holdings) note (ISIN: US20854PAL31)
$1000 First Energy (utility with coal exposure) note (ISIN: US337932AF44)
$1000 Peabody Energy (coal) note (ISIN: US704549AM66)

This portfolio – which is unlikely to be considered a “clean energy” portfolio by anyone concerned with exposure to fossil fuel assets – screens as an already-decarbonized portfolio.

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In summary, for the reasons noted above, Staff believes the Decarbonizer framework as currently implemented and utilized has significant flaws and that results derived from its use are similarly suspect.

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