

Understanding the Upper Peninsula Power Company Dilemma

When Utilitarianism Fails: Why UPPCO Investors, Customers and Regulators are Locked in a Zero Sum Game and Preparing for Cooperative Conversion May Benefit all Stakeholders



Robert D. Benninghoff, Principal, Incident Energy, LLC



<http://www.incidentenergyllc.com>

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Investment Disclosure

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The First UPPCO Interveners

“The Commission is doubtful that their clients are proper parties to these proceedings, or that their clients, as consumers and customers of the consolidated companies have interests which could be jeopardized in these proceedings”¹

- **Michigan Public Service Commission, April 21, 1947**
(Commenting on intervener status and interests in the Application for Authority to Issue Securities to fund the merger, incorporation and creation of Upper Peninsula Power Company, April 21, 1947)

Looking back it seems as though it was predestined that Upper Peninsula Power Corporation and its customers would be locked in perennial disputes over its electric rates. UPPCO investors and customers are major characters in a saga spanning more than 72 years where the Michigan Public Service Commission (“MPSC”) has been doomed to play a reoccurring role as their regulator, undoubtedly frustrated by the constraints of the script written for them by federal and state legislators for which there is little latitude for improvisation. It is a storyline that began in earnest on March 31, 1947, when attorney Joseph M. Donnelly, on behalf of his clients, the Farmers Cooperative Trading Company of Hancock; Pelkie Cooperative Society of Pelkie, Michigan; Copper Country Cheese Cooperative, Inc., of Dollar Bay’ and Northern Cooperatives, Inc. of Hancock, Michigan, filed a complaint against the Houghton County Electric Light Company, complaining “as to unreasonable rates” and petitioning for a rate reduction. Donnelly and his clients were not alone. Just 4 days later on April 4, 1947, Lawrence P. Walsh on behalf of the village of Ontonagon and the Ontonagon County Rural Electrification Association, filed a complaint against the Copper District Power Company, also complaining as to “unreasonable rates” and petitioning for a reduction of such rates.² The customers that Donnelly and Walsh represented separately and who were petitioning for rate reduction who were once served by two separate electric service providers were, in actuality, now served by a single, newly formed investor-owned utility company, the Upper Peninsula Power Corporation or “UPPCO”.

Less than a month earlier, on February 26 of that same year, UPPCO incorporated after a merger of the Houghton County Electric Light Company, Iron Range Light and Power Company and the Copper District Power Company with some of the assets of the formative companies dating as far back as 1884. UPPCO was now before the MPSC on April 21, 1947 petitioning for approval to issue securities for the acquisition of the capital stocks of the predecessor corporations and for the redemption of all outstanding funded debt. Donnelly and Walsh were seeking rate relief for their clients and intervened in the proceeding, but the MPSC “doubted that their clients as consumers and customers of the consolidated companies have interests which could be jeopardized by these proceedings; and, more essentially since none of them present the issue that the Upper Peninsula Power Company will not apply the funds derived from the issue of these securities for lawful purposes, nor such issues and amount is not essential to the successful carrying out of such

¹ “Public Utilities Fortnightly,” *Public Utilities Reports, Inc. Washington, D.C.* XL, no. July 3, 1947 to December 18, 1947 (1947): 97 to 105.,100

² *Ibid.*,99

purposes. The Commission is of the opinion that only the latter issue may be raised in a security proceedings [sic].”³

The law was seemingly unambiguous in defining the narrow basis under which Donnelly and Walsh could intervene in a proceeding for the purposes of approving authority to issue securities. The MPSC contemplated its jurisdiction and power over securities conferred by Act 144 of the Public Acts of 1909, as amended, and by Act 3 of the Public Acts of 1939 by § 1 of Act 144 and determined that the provisions limited the scope of the hearings and determinations to security issues, and that the hearing would be kept within the statutory issues⁴. In short, Donnelly and Walsh were at the wrong venue for the relief they sought for their clients. The deal was seemingly done anyway. UPPCO was already incorporated by the state, and in the MPSC’s reasonable interpretation of the law – at least as it related to financing the utility - this was a hearing about issuing securities and whether the issuance of those securities was both lawful and in amounts essential to carrying out the business of the utility.

If not sympathetic to their cause, the record indicates that the MPSC was clearly accommodating of Messrs. Donnelly and Walsh. On March 19, the “application” of UPPCO was set for hearing. It is assumed that the application refers to UPPCO’s application to the MPSC to incorporate since the MPSC records that, “These proceedings begin with the filing by the Upper Peninsula Power Company of its application for *permission to incorporate* and to issue certain securities [emphasis added].” However, the record of the hearing in *Utility Fortnightly* is dominated by two other issues: Donnelly and Walsh’s clients’ rights to intervene given the nature of their petition in light of the purpose of the hearing itself and the MPSC approval of the issuance of securities needed to finance the merger. Nonetheless, Walsh and Donnelly were allowed not only to participate in the March 19 hearing but to cross examine witnesses “as to the same extent as though their permission to intervene had been granted”.⁵

The record as reported by *Utility Fortnightly* doesn’t record deliberations or the cross examinations conducted by Donnelly and Walsh, but it does note that the two were to appear at a hearing in Philadelphia before the Federal Securities and Exchange Commission (“SEC”) where they “were to attempt to establish that their clients are proper parties to the proceedings and attempt to establish that the interests of their clients would be prejudiced if the *application* [emphasis added] of the Upper Peninsula Power Company is approved and leave to issue securities granted.”⁶ The MPSC notes in the record that neither Donnelly nor Walsh appeared before the SEC in Philadelphia, and although it is not documented why they failed to appear, it is plausible they realized they were fighting uphill on muddy ground. By April 21, 1947 MPSC’s decision was rendered: Donnelly and Walsh could not intervene in the proceeding because their clients were not proper parties to the proceeding. With the subsequent approval of the issuance of UPPCO’s capital stock and bonds, Donnelly, Walsh and their client’s failed attempt at intervening in the proceedings that would approve the merger of three utilities to form and finance UPPCO as a single for-profit utility is now barely a footnote in UP and Lansing history. That record of that footnote does, however, include

³ Ibid.,100

⁴ Ibid.,98

⁵ Ibid.,98

⁶ Ibid.,99

MPSC's summary view of the intervention that causes one pause to consider in light of UPPCO's 72 history of rate increase interventions since 1947.

“As the Commission views the situation, the only possible right which may be impaired by its action is the statutory right of review. The Commission, in the event court action is taken, desires to have the court pass upon the question as to whether or not the persons above named are proper parties to a security hearing and whether or not they may properly be aggrieved through the Commission's action. Permission to intervene before the Commission is denied solely because the Commission feels that the question should be saved for the court....”⁷

What Could Have Been for UPPCO: An Alternative History

In truth, the proceedings were more than a security hearing as the record clearly indicates. The proceedings “began with the filing by the Upper Peninsula Power Company of its application for *permission to incorporate* [emphasis added] and issue securities.”⁸ Nonetheless, MPSC limited their discussion on their intent to abide by any future court decision on the issue of proper party status solely to the matter of the issuance of securities when, in fact, the entirety of the proceedings addressed not only UPPCO's request to issue securities but the issue of approval of incorporation without which there would be no UPPCO today. What if UPPCO's very first interveners, Donnelly and Walsh, took a completely different legal tack than they did or instead of throwing in the towel on intervention, explored through the courts a more basic but broader right to intervene. What if, instead, Donnelly and Walsh intervened on the basis that their clients were not only being subject to unreasonable rates but would be further aggrieved through the Commission's act of approving UPPCO for incorporation as a *for-profit utility* in contrary to the public good.

What if Donnelly and Walsh instead argued that the MPSC should bar the incorporation of UPPCO as an investor-owned utility altogether given MPSC's vested power and jurisdiction over all matters pertaining to the *formation*, operation or direction of public utilities under Act 3 1930, 460.6 Sec. 6 (1). With the benefit of the hindsight history always provides, it is tempting to speculate that not only would this strategy possibly have given Donnelly and Walsh the legal party status they required to continue the fight in April of 1947, but more importantly, it would have laid bare what would later prove to be a principal cause of the reoccurring enmity between UPPCO and its customers, the root cause of which originates at its very conception in 1947 - the incompatibility of its very organizational structure as a for-profit utility with the region it serves. One can argue today with this hindsight and a wealth of accumulated historical evidence that it was UPPCO's incorporation as a for-profit utility that set it on the inexorable course of all the trials and tribulations that would follow. For its investors and customers alike these challenges have become increasingly acute as the decades have passed and 1947 fades farther into history.

⁷ Ibid.,100

⁸ Ibid.,97

For the Good of Most of the People Most of the Time, but not Some of the People all the Time

To fully contemplate UPPCO's past, present and possible future it is necessary to understand some basics of utility economics, the premise of laws governing regulated utilities as well as a smattering of financial investment theory because, after all, utility investor actions play a critical role in determining outcomes for customers. In particular, it is necessary to achieve a cursory understanding of what the characteristics of both optimal and sub-optimal investment return is, not only to a utility's investors seeking profits but to its regulators who police those profits as well. Although this will certainly be dissatisfying to some, the UPPCO story has no clear villains, but neither does it contain any heroes. This storyline, at least in the last 20 years, might be best characterized as one of hapless "financial investment misadventure" of owners trying to beat the odds of earning a reasonable return faced with the inherent risks of owning a small "Disadvantaged Utility" with the unfortunate arc of history culminating in UPPCO customers today feeling as though they've been tied to the railroad tracks of a train running on schedule synchronized to UPPCO rate cases and no hope of rescue¹.

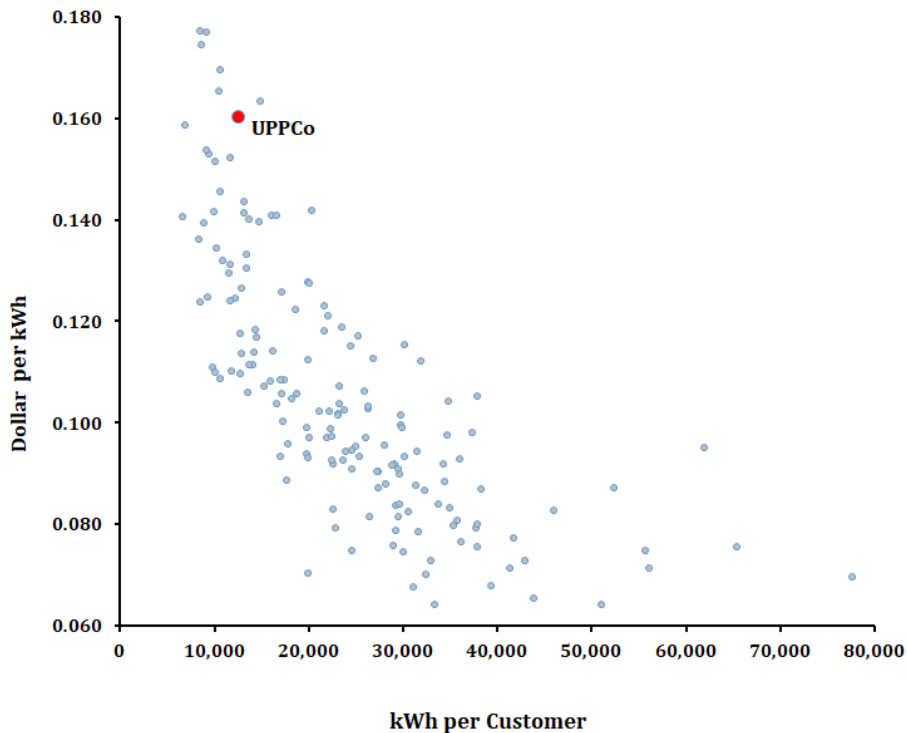
The public good: it is the principal justification underpinning our legal sanctioning of natural monopolies in the United States. Under specific circumstances throughout history U.S. consumers have willingly chosen to eschew open markets and the consumer benefits derived from free market competition in exchange for a single or severely limited number of supply-side actors. It is this Faustian bargain that ultimately gives rise to a subsequent need to monitor and regulate activities of these "natural monopolies" we chose to allow to operate, lest a natural monopoly lose sight of the reason it is allowed to exist – the interests of the public good. In cases where it is argued that natural monopolies are the most efficient solution for consumers, it is often also the case there is a palpable risk that too many suppliers competing for unique or scarce resources can create an unsustainable, ineffective or non-optimal solution ultimately creating more harm than good for consumers.

The natural monopolies most of us are most familiar with are investor owned electric and natural gas utilities or "IOUs" which are certainly costly to start, maintain and operate and where gas pipeline and electric transmission and distribution systems can be seen as unique (and scarce) resources required to deliver utility services. For example, there is no economic benefit inuring to consumers from two suppliers constructing two separate electric distribution systems in one neighborhood, particularly because there is no technological advantage one supplier has over the other. A copper wire is a copper wire whether it is hung in the air to transport electricity or wound around an iron core to become a transformer. Utility regulation assures that for-profit companies operating as monopolies serving the public good do not abuse the privileges to operate without (or with severely limited) competition within franchised geographic territories given their market power.

One critical aspect of regulation is granting regulated utilities reasonable rates of return on infrastructure investments which should be commensurate with broader market expectations for returns on invested capital in consideration of the risks being born by utility investors. Finally, although seemingly unremarkable, the economic concept of utility itself is critically important when getting to the core of why so many UPPCO customers are frustrated, confused and angry with their

current utility provider and the MPSC. The idea of utility and utility value is associated with the doctrine of “utilitarianism” which is to bring about the greatest good for the greatest number of people so we must ask an obvious question as to why a significant number of UPPCO’s 52,000 customers would not characterize their rate situation as anything but good or maybe even tolerable.

2016 U.S. Investor Owned Electric Utilities
(Average Utility Dollars per kWh vs. kWh Sold per Customer)



Unfortunately, utilitarianism seeks the greatest good for the greatest number of people so we must accept that this definition allows for the possibility that in a limited number of cases a natural monopoly will result in circumstances where conditions fall short – and potentially *well* short - of the greatest good for some customers in possibly almost all cases. This is why there are different forms of natural monopolies, and within the electric sector we have two general classes: non-profit and for-profit utilities. Nonprofits are typically customer-owned (referred to as member-owned) cooperatives and municipal owned utilities and for-profits are investor owned, either with its ownership publicly held and traded or ownership limited to private equity and not available for public ownership and sale (transfer). The differences in investor motivations of publicly held and privately held for-profit utility investors matters, and it is not at all clear if the MPSC or Michigan’s leadership understands that the complexion of UPPCO’s financial changes since transitioning from public equity to private equity ownership reflect those motivational differences and what the consequences might be reasonably expected as a result.

Understanding these differences is critical to understanding why conventional regulatory policies and procedures designed with the intent to safeguard the financial health of large, publicly traded Advantaged Utility holding companies for which the MPSC is adapted to regulate are potentially insufficient for gaining a full picture of UPPCO's current and potential future financial condition. Additionally, by limiting use and focus to the use of traditional regulatory methodologies and procedures the MPSC and Michigan leadership may be blind to other financial indicators signaling a potential inflection point. If UPPCO's investors' future earnings returns prove to be both as volatile and disappointing as they were when UPPCO was part of large, robust publicly traded utility holding company capable of leveraging synergy benefits that rolled up at the consolidated level, it is prudent for Michigan leadership to be prepared for a potential opportunity to – once and for all - course correct UPPCO's future and consider in advance how that might be done for the benefit of all stakeholders should that opportunity arise.

UPPCO: A For-Profit Utility Unique to its Economy, Location and Constrained by its Geography

UPPCO's earnings are volatile. It's a mathematical function and universal principal of running a small, Disadvantaged Utility at low margins – whether a for-profit or otherwise. UPPCO's low margins contribute significantly to its earnings volatility. This is hardly ideal for regulated utility investors unless the utility's regulator is wildly sympathetic to investors and adheres to strictest tenet of financial risk/reward principles. If risk of earnings is inherently higher for UPPCO then a reasonable return on investment in UPPCO should be greater than those granted to by regulators to larger, more stable IOUs with lower earnings volatility. Unlike UPPCO, highly efficient utility behemoths seek to gain full advantages from natural monopoly status and scalability and customer density advantages allowing them to operate at the lowest possible cost structures. This partially explains large IOUs' ability to offer lower rates to their customers coincident with favorable returns on equity to their investors.

It doesn't hurt that IOUs' allowable returns on equity, given their lower earnings volatilities, are often more favorable than theoretical financial models might otherwise indicate is justified. Nonetheless, the greatest good for large IOU customers, like all utilities, takes into account the stability of the utility. The ability to raise both debt and equity capital cost efficiently either directly or through their holding companies contributes to a lower cost of capital so regulators often err on the side of higher allowable returns than cost of equity financial models (or even the markets) might otherwise suggest for the promise of stability and security. A large, well-operated, electric IOU with the interests of the public well aligned to those of its utility investors is the ideal in the regulated electric sector.

This is where utility regulation theory breaks down along the tails of the probability distribution of the greatest good for the greatest number of people. UPPCO lies in the tails of many distributions, i.e. out of normal ranges, for both customers and investors alike, including – *especially* - when it comes to determining what is “good” and for whom. In UPPCO's case, regulators have been forced to divide the baby since it incorporated in 1947 (and likely before). A part of this problem stems from the allowable returns on equity utilities are allowed in relation to the risk/reward paradigm of investment theory. For reasons previously explained, large stable IOUs are granted allowable returns on equity that are quite favorable given their low earnings volatility.

**Estimated Capital Asset Pricing Model Expected Returns
Compared to Actual and Estimated Regulated Allowable Returns
(2006 to 2016 without dividends and risk free rate of return 3.765%)ⁱⁱ**

Utility / Index	Beta	Expected Returns	Actual Returns (NI-Based)	Estimated Regulatory Allowable Returns
S&P500 Index	1.0	-	6.45%	n.a.
S&P Utilities Index	0.508	5.13%	3.44%	n.a.
UPPCO	0.049	3.92%	6.77%	10%
WPSC	0.00167	3.77%	10.12%	10%
WEPCO	-0.000349	3.75%	10.59%	10%

If state regulatory commissions feel it is imprudent policy to reduce the returns on equity of all large, Advantaged IOUs closer to market portfolio returns given the lower volatility of their earnings because they believe higher allowable returns and the financial stability are in the best interests of customers, a problem begins to emerge for UPPCO investors immediately. It is a problem of both financial investment theory and regulatory policy in setting allowable returns. First, relative to the market in terms of the risk of returns as measured by theoretical cost of capital models, UPPCO's net income based earnings returns were in line with its actual returns and exceeded expected returns from 2006 to 2017. However, compared to the returns of larger more efficient utilities like Wisconsin Public Service Corporation ("WPSC") and Wisconsin Electric Power Company ("WEPCO") and the allowable returns granted to it by the MPSC over the same period, UPPCO underperformed (please see endnote regarding utility comparisons used throughout this this whitepaper)ⁱⁱⁱ.

To fully address investor concerns, if MPSC would have allowed UPPCO to raise its rates to achieve reasonable rates of return on equity commensurate with the larger, more efficient electric utilities with less earnings volatility over the period, rate pressure for customers would have become intolerable. Conversely, to address customer concerns, if it lowered UPPCO's allowable return on equity to below its actual returns to provide rate relief, to say 3.92% which was its theoretical expected returns (over this very short example period), there would be no incentive for an equity investor to stay invested in UPPCO at all. From 1998 to 2013 UPPCO's holding company, already consistently under earning on its UPPCO investment on average would have had no choice but to pull its equity out and redeploy capital in other utility subsidiaries earning reasonable returns, and its current private equity investor (since 2014) would be similarly forced to find more fertile uses of its capital elsewhere in the market. This problem is far from solved, and new pressures given the nature of its ownership structure may prove to be intolerant of the long-standing MPSC balancing act which has allowed UPPCO to operate in a stalemate between customer and its investor interests from 1998 through its sale in 2014.

The MPSC dutifully and continually communicates to UPPCO's customers that even though they are paying rates for electricity that are some of the highest in the nation, that they are obligated by law

to allow UPPCO investors to earn a reasonable rate of return. It has not helped bring clarity to the underlying problem when UPPCO customer advocates insinuate that UPPCO's higher rates are wholly attributable to malignant profiteering when the true problem is much more nuanced and complex. Reviewing the data from 2006 through 2017, relative to other regulated utilities, it is difficult to argue that UPPCO investors, on average, earned a reasonable return compared to other regulated IOUs. Simply put, the investor-owned, for-profit regulated model has proved to be suboptimal for both UPPCO investors and customers, and its unique local industry and geographical location in the UP is likely to blame. Almost all rural cooperatives were formed in the early 20th century because investor owned utilities recognized it was too expensive to serve rural communities and to do so meant a no win proposition for their investors. Utility investors were no fools. They understood that their permitted existence by the states in which they operated as natural monopolies came with the obligation of regulators to uphold the public good when it came to ratemaking.

If utilities chose to extend electric distribution into rural areas they had two options. The first option was to charge rural customers for actual costs to serve them, i.e. perfect cost causation rate making or one that exhibited no "skewing" of costs among rate classes. However, rural customers wouldn't likely be able to afford electric distribution infrastructure costs, particularly once investors' returns on infrastructure investments were applied. The second option was to subsidize the costs among all rate payers. That was problematic. Once a utility decided to serve rural areas, it either had to charge rural customers the actual costs to serve them (which they likely couldn't pay) or subsidize the costs among all rate payers. If regulators allowed true cost causation ratemaking policy and rural customers couldn't afford the rates, to avoid subsidizing directly and shifting those costs to urban customers, regulators might be forced to reduce utility investors' allowable returns on equity for the good of public. This is any investor owned utilities' worst case scenario. If, instead, utilities chose to willingly subsidize the costs of rural customers in urban customers' rates, this risked displeasing urban customers, particularly industrial customers that were fueling utility growth in the early 20th century and providing the high load factors (high generation asset utilization) which all utilities covet.

Strong load growth and high load factors from industry not only allows utilities to invest in additional infrastructure but resulted in an ability to spread fixed costs among more megawatt hours. The problem was that negative rate impacts resulting from a decision to serve rural areas could temper industry growth. Even if it didn't, just the *possibility* might activate industrial customers who had significant political influence, and it was back to the worst case scenario. Regulators might be forced to reduce IOU allowable returns on equity to provide rate relief across all customer classes. Having allowable returns on equity reduced is utility investor cancer. This means every new investment will result in a lower return on equity, and there simply wasn't enough economic growth or investment opportunity in rural communities once the distribution lines were strung to take the initial incremental financial risk of serving them.

The unvarnished truth is that once an IOU willingly decided to serve a rural area those customers became part of the "public" in the eyes of utility regulation, and regulators had to uphold their obligation to regulate the utilities' operating with the good of those rural customers' interests in

mind. Those interests were highly divergent with shareholder interests. The decision to forgo offering service to rural U.S. communities and terminate electric distribution systems were the roads became dirt was cold hard math. Alternatively, for decades in the early to mid-20th century there existed a virtuous cycle for utility investors and urban customers. Industrial growth resulted in increasing electric loads and allowed for construction of larger, more efficient energy generators that drove incremental utility investments that could, in some cases, lower average costs. Interests were aligned. What was good for utility investors was generally good for urban customers. This wasn't the case with rural customers then and quite often still remains the case to this day.

This is why we have rural cooperatives today, and why the federal government developed programs to help cooperatives finance infrastructure investments at costs they could afford for the good of large geographic segments of the country for-profit utilities chose not to serve. Eventually electric distribution cooperatives formed generation and transmission ("G&T") cooperatives - a cooperative made up of cooperatives - to achieve economies of scale that larger investor owned utilities enjoyed. Today G&Ts operate as efficiently and with as low as rates that can be expected given their member cooperative customer densities. The obvious question is why UPPCO and its customers became an investor owned business model rather than a member-owned cooperative model in the first place. The answer is likely owing to the UP's unique regional economy tied to its natural resources of forestry products, copper and iron ore.

In most rural areas in the U.S. where cooperatives formed, agriculture dominated the economic landscape. Agriculture did not demand nearly as much energy as heavy industry in urban areas that drew upon large numbers of workers for factory labor. Electrical generation is placed as close to load as possible to reduce electrical losses and provide electrical stability of distribution systems. There were no, or at least very few, electrical generators close to rural areas in the U.S. in the early 20th century for this reason. The mining and forestry industries factor heavily into UPPCO's history, and because there was no high voltage transmission system to connect UPPCO to larger, more urban population centers where electrical generation sources were typically first constructed in the late 19th and early 20th century, mining and forest product interests had to fund and construct generation and distribution infrastructure local to their operations, many of which were hydroelectric facilities. UPPCO's Victoria dam and generating station built in 1931 serves as an example. It was constructed for the primary purpose of powering the copper mining and forest products industry not to serve residential customers remote to those industries.⁹

UPPCO customers benefited from the mining and forestry industries not only as source of employment, but as a source of early electrical power for their homes. As a peninsula, the region was nearly impossible to serve as a conventional rural distribution cooperative because the source of their electricity, particularly in the early to mid-20th century, was almost all sourced from investor owned power generation facilities. The power a rural cooperative in Illinois might purchase from an IOU needed to travel over long distances, but it could, at least theoretically, be imported from four different directions in most areas of the state, and in the worst case at least three. Similar things can be said for Indiana, Ohio, Nebraska, Kansas and so on. In the UP, the only path to investor owned generation was to the south in Wisconsin, and the North Woods of

⁹ "Victoria Hydroelectric Generating Station," accessed March 6, 2019, <http://www.coppercountry.com/VictoriaDam.php>.

Wisconsin was certainly no urban center and had limited, local generation sources itself which developed in much the same manner as the UP. But, Northern Wisconsin could at least access lower Wisconsin in decades to come. The transmission interties between the UP of Michigan and Wisconsin that allow the UP to access lower Wisconsin generation remain constrained today relative to more accommodating geographies, but are more robust than just 20 years ago.

It is possible that serving residential customers was tangential to UPPCO's primary focus of serving commercial and industrial interests when it formed from its predecessors and incorporated in 1947. What seems clearer is that it was an enigmatic regulated utility even back then given UPPCO's size and comparing it to how the electric industry was developing in other parts of the U.S. during that time. It is as if the portion of the UP that UPPCO serves formed from the "outside in" rather than from "inside out" as did almost all other electric infrastructure in the U.S. Instead of electric power plant generation being located in the urban centers where industry was typically located to tap the resource of available labor and robust rail transport infrastructure (think Detroit), in UPPCO's case, large sources of generation (at least for that time) were themselves the valuable resources to be tapped (think rivers near mining or post-mining operations).

These locales were remote from the small urban areas in the UP that formed cooperatives and municipals that built and financed their own electric distribution systems. Consequently, a remote UPPCO retail customer served by UPPCO was akin to an urban retail customer in most large cities in the U.S. served by a large IOU like Consumer's Energy. Those living in the more populated "urban" centers (which were nothing more than very small bergs and towns) in the UP were more like rural customers in the most places in the U.S., at least in terms of how they were served and who owned distribution service. It began enigmatically and so it remains today.

UPPCO: Struggling to Sustain a For-Profit Business Model in a Changed Upper Peninsula

In many ways the UP has changed considerably since 1947. In other ways it is much the same. The mining industry peaked and waned, and there are more regional electric generation options today, with yet more on the way. Although far from ideal, the region has strengthened its ability to access power from outside the Peninsula. However, UPPCO went from owning what were once a large portion of the scarce sources of electric generation in the UP to now owning many of the oldest, outdated and consequently most expensive generation assets in the UP. It is not only the changed local economy that has negatively affected the little utility, its everything from laws to protect the environment to modern, progressive energy laws instituted in Michigan that seemingly continue to dog pile atop the besieged utility and its most vulnerable customers.

UPPCO's hydroelectric assets which once could pool water in off peak hours and be released later to maximize its electric generation during on peak hours at the pleasure of its operator to maximize economic efficiency are now required to maintain minimum water flow rates or operate "run of river". This is to insure sufficient water is flowing to properly oxygenate the water to minimize impacts to fish and other aquatic inhabitants of the river systems. Additionally, it seems that the smaller the UPPCO customer, the more susceptible to further rate pressure they are, and not only help not coming from legislators in lower Michigan, with each successive state energy law Michigan passes, even if with seemingly good intent for the good of *most* of the people in Michigan, it seems as though a small portion of the people of Michigan, many of which reside in UPPCO's service territory, become more heavily burdened. Some of the newer Michigan energy laws provide relief to larger commercial and industrial customers, including those in the UP, but not its smaller, more economically vulnerable ones.

Like all regulated electric utility customers, the Customer Choice and Electricity Reliability Act (Public Act 141 of 2000) incentivized UPPCO's retail customers to seek alternative retail suppliers who wield surplus wholesale electricity from the market. Because it is much more profitable to target large energy consuming commercial and industrial customers rather than residential consumers, it is the largest customers that are targeted by non-regulated electric suppliers through retail choice. The largest industrial customers are in the best position to flee their retail providers' higher cost structure during periods when supply exceeds demand in the market and wholesale power prices drop. In the most glaring example, in 2013, Integrys Energy Services ("IES"), a non-regulated energy supplier in Michigan and wholly owned subsidiary of IEG boosted WEPCO's largest Michigan retail customer, exploiting a change to Public Act 141 in 2008 which excepted iron ore mining and processing facilities from counting towards the cap limiting the amount of a regulated utilities retail load which could be plucked off by retail choice.

WEPCO lost more than 85% of its retail load in the UP and as a result prematurely lit the fuse on a chain of events around the retirement of the Presque Isle power plant that affected every UP electric utility, cooperative and municipality in the region. The results of retail choice, even in milder examples, is that fixed costs of operating a utility get spread to fewer customers, and an increasing percentage of these costs are most likely to be shifted to residential customers. The

same year that the 10% cap exception to Act 141 was instituted, under pressure from Michigan's industrial electric customers, PA 286 of 2008 was signed into law on October 6, 2008. Among a number of other progressive measures it required that utilities must rebalance their rates to better reflect the actual costs to serve each class of customers.

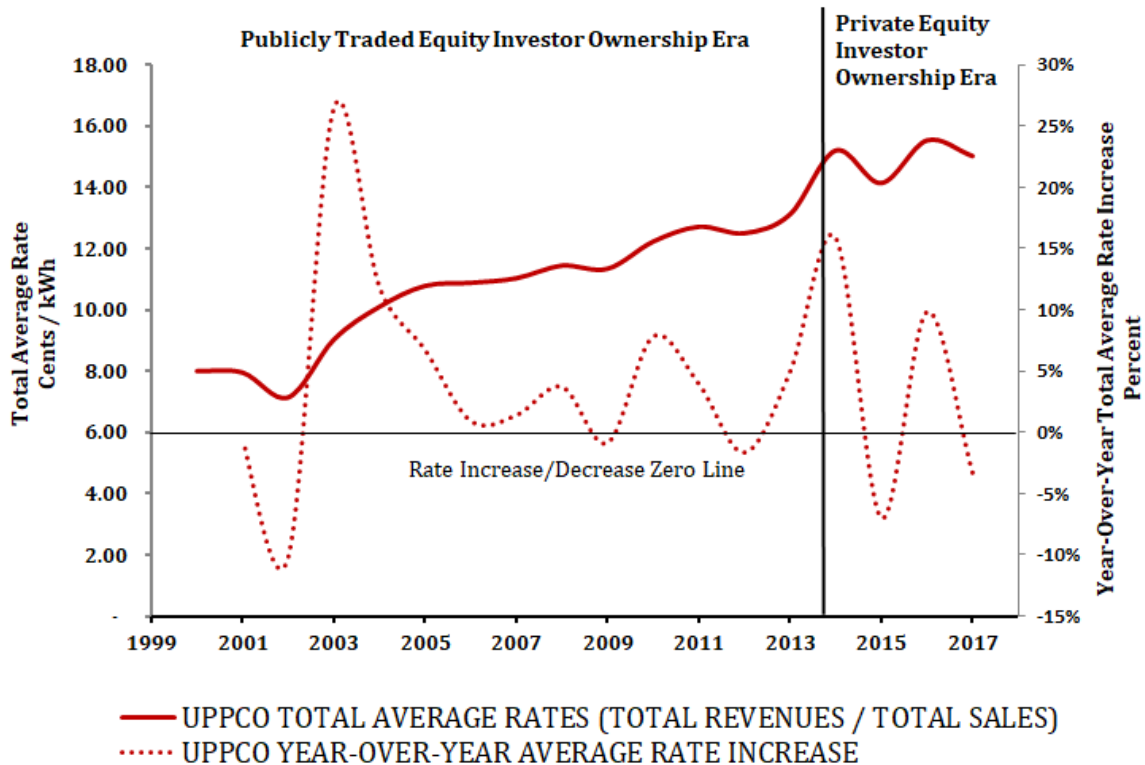
In September of 2017, UPPCO's CEO indicated that the rate de-skewing process that had begun 4 years earlier under UPPCO's previous owners, IEG, which unburdens industrial customers by shifting costs to residential customers, would continue as required by law.¹⁰ In 2000, UPPCO sold 262,737 megawatt-hours (MWhs) of power under its residential tariffs, collecting average revenues per customer of 9.82 cents per kilowatt-hour (kWh). By 2017, it was selling 243,050 MWhs and collecting an average of 24.46 cents per kWh, or a 149% increase in revenue collections from residential customers over that same 17 year period where residential sales decreased by 9%. Although it might be surmised that UPPCO's larger commercial and industrial retail and wholesale customers realized a windfall from inter-class realignment of costs, the numbers tell a different story.

Over that same period, UPPCO's wholesale power business (or energy sales for resale) completely evaporated. In 2000, UPPCO's wholesale power sales were 140,695 MWhs or 14% of its total sales. By 2013 all of UPPCO's wholesale customers were gone. They had pursued alternative opportunities for power within the region with other suppliers. Utilities don't sell wholesale power cheaper than they sell retail, and UPPCO wholesale customers were heading towards the exits. The exodus of its wholesale customers should have been a red flag, an indicator of what likely lay ahead for UPPCO to anyone watching during that time or a cautionary tale for anyone that would conduct due diligence in the future. UPPCO experienced a 24% reduction in its total sales within 17 years. All wholesale customers had run for the lifeboats provided by alternative providers, but unfortunately for retail customers of a regulated IOU in Michigan, there are no lifeboats to take if alternative providers are not available or are pursuing commercial and industrial customers first causing a host utility to reach the 10% Act 141 cap.

UPPCO collected an average of 6.87 cents per kWh under commercial and industrial rates in 2000 and 10.05 cents per kWh on average in 2017, an increase of 46% on a meager 5% sales growth in that segment over the 17 years. While not nearly as steep a rate increase as residential customers experienced over the last 17 years it reveals that no rate payer can find shelter from the systematic challenges the utility faces. Although in the short run, in a given rate case, commercial and industrial customers might experience rate decreases, in part owing to deskewing, but when netting all the risks and uncertainties facing UPPCO over the long term, rate realignment through intra-customer class cost has only tempered what would otherwise have been higher rate increases by shifting recovery of costs to other rate classes, particularly residential customers.

¹⁰ "U.P. Power Company Takes Another Step Toward Reducing Customer Bills No Title," n.d., <https://www.uppco.com/wp-content/uploads/20170914-UPPCO-Takes-Another-Step-Toward-Reducing-Customer-Bills.pdf>.

**UPPCO Historical Average Rates (all Revenues / All Sales for all Rate Classes)
(1998 to 2017)**



This does not mean that cost shifts which are occurring do not necessarily result in a better reflection of actual costs to serve each rate class. It is only to say that being forced to myopically focus on the welfare of one class over the other within the utility is like treating the body of UPPCO customers as if it has two acute open wounds - one wound on its arm representing the residential customers and another on its leg representing its commercial and industrial customers, and where only one tourniquet is available. In the long run, the whole body will ultimately succumb from the effects of the wound that goes unattended, and one limb bleeds faster once the tourniquet is applied to the other limb. MPSC has played the role of first responder to UPPCO for well over 70 years; it is doing what it can with what it has, but UPPCO will require the attention of a team of Michigan leaders to prescribe a course of future treatment that can manage its chronic condition if it is ever to be completely healed. UPPCO's acute traumas are the results of chronic, systemic causes that can't be treated in the field, i.e. from rate case to rate case, and a utility's commercial and industrial customers tend to be made up of its residential customers in one corporal economic, civic and social system. However, in order for Michigan leadership to help fix the utility if the opportunity arises, it first needs to understand the causes of its chronic condition and factors contributing to the manifestation of its symptoms. Otherwise, it cannot be confident that the prescription is appropriate for the underlying malady.

Communities and cooperatives that formed independently of UPPCO prior to 1947 may have felt like outcasts no one wanted, but they were all in the same boat. They were all conventional, standalone non-profit cooperatives. They formed individually out of a necessity, or possibly

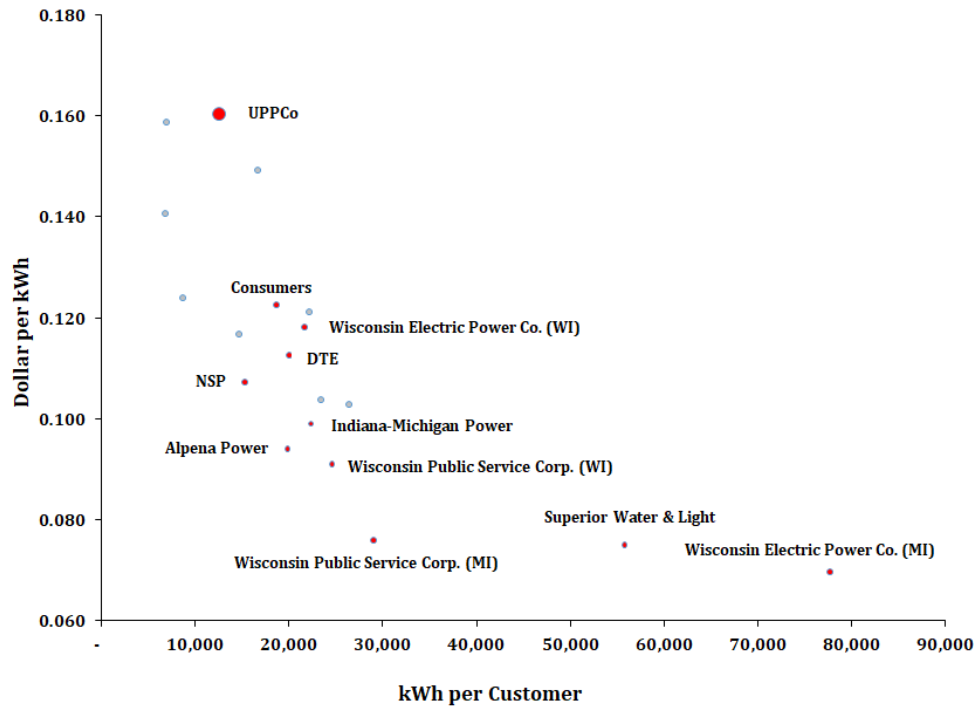
uncanny foresight, because it was not cost effective to serve them within a for-profit model by extending distribution service to them. Such communities simply didn't offer an electrical load demand density attractive enough to entice a for-profit utility to invest in distribution infrastructure to serve them. Municipals and cooperatives had to take matters into their own hands (presumably with the helping hand of the U.S. Government in some cases) to finance their investments. Ironically, being a group that was unprofitable and that for-profit interests didn't wish to serve provided cooperatives and municipals in the UP the independence that likely serves them in better stead today. The fruit of cooperative customer independence is exemplified by an UPPCO customer today who remains captive to the for-profit model who might look across the street at their cooperative customer neighbor who now pays less for their power. This would be an exception in the remainder of the U.S. where most regulated utility customers pay less than their cooperative customer neighbors.¹¹

What must be almost equally as frustrating is that UPPCO customers do not understand why or how this happened and more importantly how, or if it is even possible, to escape the cause for their predicament which likely predates their birth. The fortunes of UPPCO's customers are inextricably linked to a for-profit enterprise in a modern day world much different from the very unique circumstances that fostered its formation. Whereas UPPCO as a for-profit enterprise has struggled, well managed, traditional for-profit utilities in urban centers have consistently prospered. Given customer frustration levels and the temperature of the rhetoric, it is not unexpected that UPPCO customers might question managerial competency or suspect profiteering owners or both. It is long overdue for an evenhanded analysis and an open, dispassionate dialogue about the utility's challenges and its long-term future as a viable for-profit IOU.

Individually, the MPSC and UPPCO, in their respective roles as regulator and for-profit utility, are operating much nearer to the line which separates the conventional and potentially unmanageable from each stakeholders' viewpoint – MPSC as regulator relating to rates and Basalt as UPPCO's owner relating to acceptable returns on its equity investments for associated risks (including regulatory policy that informs these risks). Therefore, it is prudent to give some consideration to how close to this invisible line each party may currently reside. Until now, it is a topic completely eclipsed by the more emotional outcries over the utility's unpopular actions, primarily rate increases from rate case to rate case, resulting in large measure from what is nothing more than the consequences of the business structure itself and the master it becomes to its investors.

¹¹ This is should not be misinterpreted to mean that on average UP cooperatives and municipalities do not have higher rates relative to larger, Advantaged IOUs that have reached optimum economic scalability but rather that UPPCO, which is an IOU, has much higher rates than the average IOU. UPPCO's rates present more like the average electric distribution cooperative utility than the average Advantaged IOU held by a publicly traded holding company.

**2016 Michigan and Wisconsin Investor Owned Electric Utilities
(Average Utility Revenues per kWh vs. kWh Sold per Customer)**



It is ultimately about *systematic* advantages and disadvantages of an inherently inefficient electric market. Even when faced with stagnating electric loads, larger utilities continue to grow, if not natively then through merger and acquisition (“M&A”) activity to become even more efficient natural monopolies in a market offering less in terms of growth opportunities. To what extent those efficiencies gained through M&A are serving the interests of shareholders versus utility customers and at what point an increase in size is a diminishing return is a matter of some debate in many cases. Nonetheless, UPPCO is clearly sub-optimal as a for-profit utility owing to its customer density and economic and regional characteristics.

UPPCO It is trapped in the past, to an origin story that is unique to that utility and its customers because its local industry and geography is unique to the UP unlike any other IOU of its type in the United States. It is arguable whether a regulated investor owned business model will ever be an optimal model for UPPCO moving forward because of its portfolio of generation assets, territorial characteristics and the changed economy and associated demographics, but that hasn’t discouraged a number of intrepid investors in the last 20 years from attempting to overcome the rising tide of systemic and irreversible inefficiencies set against the utility. Each has embarked on that journey, attempted a swim against a rising tide with the anchor of utility regulation securely shackled to their leg in the form of the MPSC’s obligation to regulate UPPCO in the interests of public good.

UPPCO: 20 Years, 2 Investors, 2 Motivations, 1 Persistent Challenge

The Publicly Traded Utility Holding Company Era (1998 to 2014)

One might liken UPPCO to Russia experiencing an early winter and an UPPCO investor as the army that planned for a late fall invasion. It may have seemed like a good idea at the time of the planning, just as it might have seemed to WPS Resources (“WPSR”) before acquiring UPPCO in 1998.

However, it is difficult to argue the obstacles were part of hidden information. UPPCO may not give up its investors easily, but it cannot be said that it puts on a mask of congeniality, concealing its hideous face only to be revealed later and pounce once the investor becomes entangled by its intrigues. It seems more accurate to say of UPPCO that the diminutive utility seems to have a certain natural charm, a magical siren song of sorts that not only draws investors to it, but casts an enchanted spell upon them causing them to overlook even its most conspicuous warts or if maybe if not overlook them completely, at least be willing to attempt to live with them.

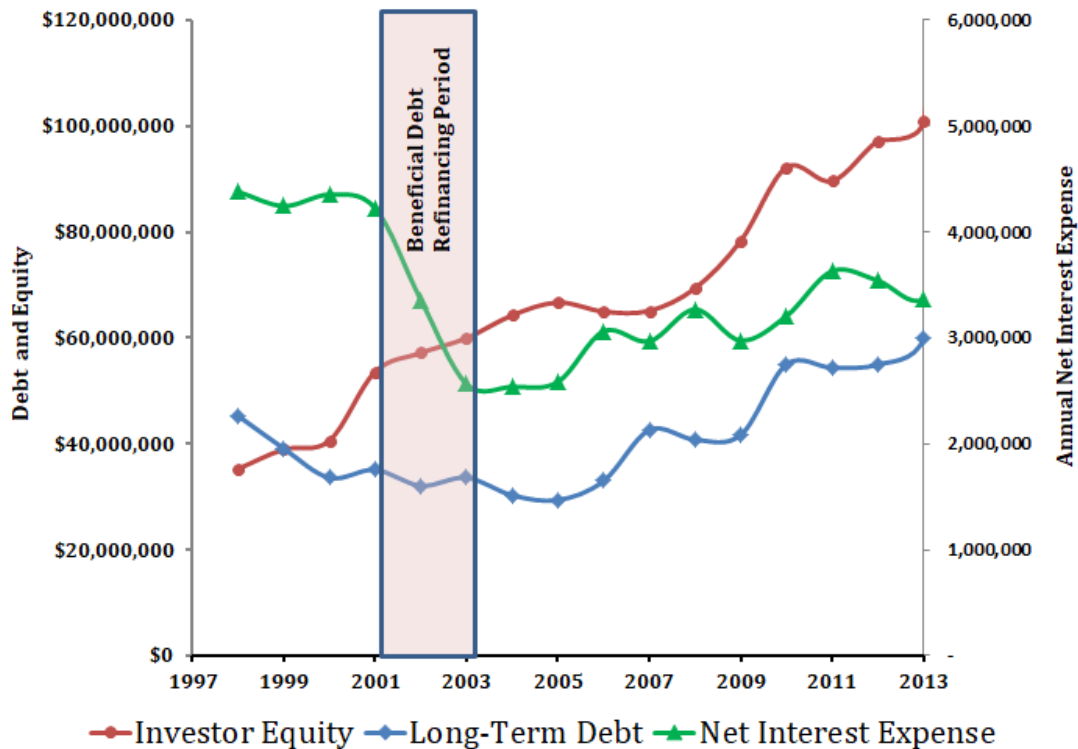
In 1998, UPPCO’s territory was severely transmission constrained. Opportunities to import power were severely limited, and even more problematic for an IOU that earns financial returns through infrastructure investment was the dim prospects of building new generation in the UP to combat transmission constraints. The rate pressure UPPCO customers would bear as a consequence was simply too burdensome to expect “reasonable” return on investment from regulators. Smaller electric generation units are more expensive and more costly on a per unit energy basis, and it is necessary to find a nexus between availability of large volumes of reliable natural gas (or coal) in the case of fossil fuel generators and robust electric transmission, a nearly impossible convergence of riches in the UP in 1998. UPPCO’s customer densities (measured in customers per distribution line-mile) were significantly lower than WPSR’s flagship electric and gas utility, Wisconsin Public Service Corporation (WPSC) based in Green Bay, Wisconsin, resulting in comparatively much higher costs for distribution maintenance and operation on a per customer basis. The cost to operate and maintain UPPCO’s distribution system on a per customer basis is punitive when compared with the larger regional Wisconsin utilities operating to the south.

As if this were not enough, WPSR acquired UPPCO’s debt with the acquisition at a cost its FERC filings indicate was above market and a cost WPSR remained burdened with until it achieved full relief in 2003.¹² In consideration of its operational, territorial and economic characteristics, UPPCO was a questionable investment as a standalone electric utility. WPSR must have assumed synergies with WPSC could close the gap and make UPPCO a fertile investment. After all, natural monopolies benefit from expansion in output and the ability to spread fixed costs. WPSC shared a territorial boundary with UPPCO, and administrative synergies undeniably existed between UPPCO and the larger WPSC to the south that already served a modest number of Upper Peninsula customers. Both

¹² Although initially burdensome, the fact that WPSR was able to refinance debt at a significantly lower cost, post-acquisition, represented an opportunity for both UPPCO customers and its investors. This represented a highly predictable \$1.6 million annual savings and is clearly evident in the graphic depicting UPPCO’s historical net annual interest expense during the Integrys/WPSR era. Later, as will be shown, the exact opposite occurred after the BBIP acquisition of UPPCO where the annual net interest expense increased immediately by approximately \$1.3 million per year.

UPPCO and WPSC territories included a mix of a large percent of rural customers and a number of larger industrial customers.

**WPS Resources / Integrys Energy Group Era
Total Debt, Equity and Annual Net Interest Charges
(1998 to 2013)**



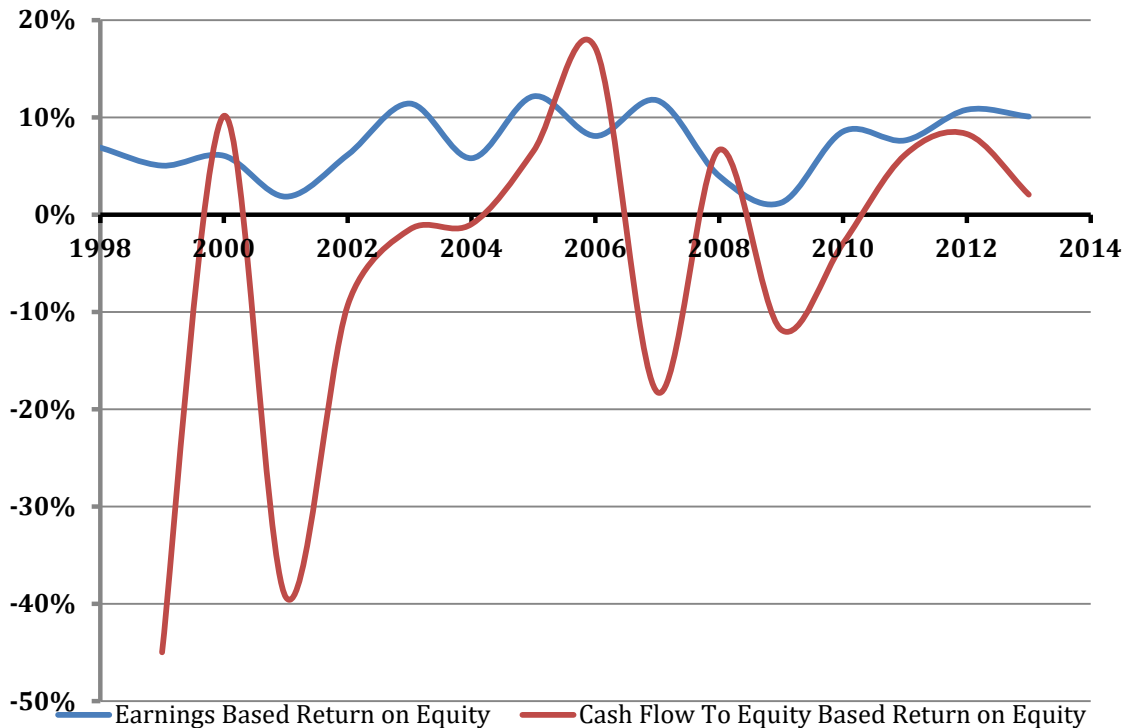
Synergies

Both WPCO and UPPCO operated a sizeable fleet of older hydroelectric assets as well so, for these reasons as well as their geographic proximities, their organizational needs and cultures were not dissimilar. Nevertheless, if UPPCO had a possibility of returning on investment, WPSR would need to capture every possible available synergy. Undoubtedly there were two synergies which must be fully exploited by WPSR if UPPCO were going to yield dividends. The first synergy was the ability to utilize WPSR's shared services group which provided administration tasks. UPPCO would realize the benefits of these shared services as savings from lower administration costs than it would otherwise pay as a standalone utility as would the subsidiaries under the WPSR holding company umbrella, particularly WPCO.

The second synergy was derived from WPCO's ability to provide full service requirements power sales backed by the larger, more cost effective WPCO-owned generation fleet. This allowed WPCO to justify larger, more efficient generation investments, and WPSR shareholders benefited from the returns on larger equity investments in those assets in Wisconsin. Even if UPPCO couldn't consistently return on WPSR's investment as a standalone affiliate in the UP of Michigan, it allowed

for a measure of savings through shared services and power supply / generator investment benefits that rolled up to WPSR's consolidated financial statements. Exactly how much net benefit inured to WPSR affiliates versus UPPCO from shared service synergies is difficult to ascertain, but one element of financial benefit to UPPCO's customers resulting from WPSR's ownership is quite clear in retrospect. WPSR was willing and able to periodically forego profit-taking at UPPCO to temper its electric rates.

**WPS Resources / Integrys Energy Group Era
UPPCO Earnings and Cash Flow to Equity Based Returns
(1998 to 2013)**



What may be overlooked and contributing to a long overdue reconsideration of UPPCO's future is that from 1998 to 2014, under WPSR (and later, Integrys Energy Group after a name change) the publicly traded holding company periodically ran UPPCO as a de facto non-profit utility. Because of shared services and power supply synergies its investor could grit its teeth and reluctantly and intermittently sacrifice profit from its UPPCO investment for the public good of its customers to ease the rates. UPPCO's returns on equity remained below its estimated cost of equity until 2003 suffering 5 years of post-acquisition subpar returns. Its earnings-based returns would yo-yo annually, above and below an estimated 10% benchmark threshold for its cost of equity until plummeting in 2008 and 2009 not rising again to barely eclipse 10% in 2012 and 2013 just prior to IEG's sale of the utility in 2014. From 1998 to 2014, using a 10% return on equity as a benchmark,

only once did it achieve its investor's returns in two successive years and then, just barely. In two of those years, its earnings based returns on equity were less than 2%.¹³

Public Utility Holding Company Investor Motivations in Publicly Traded Equity

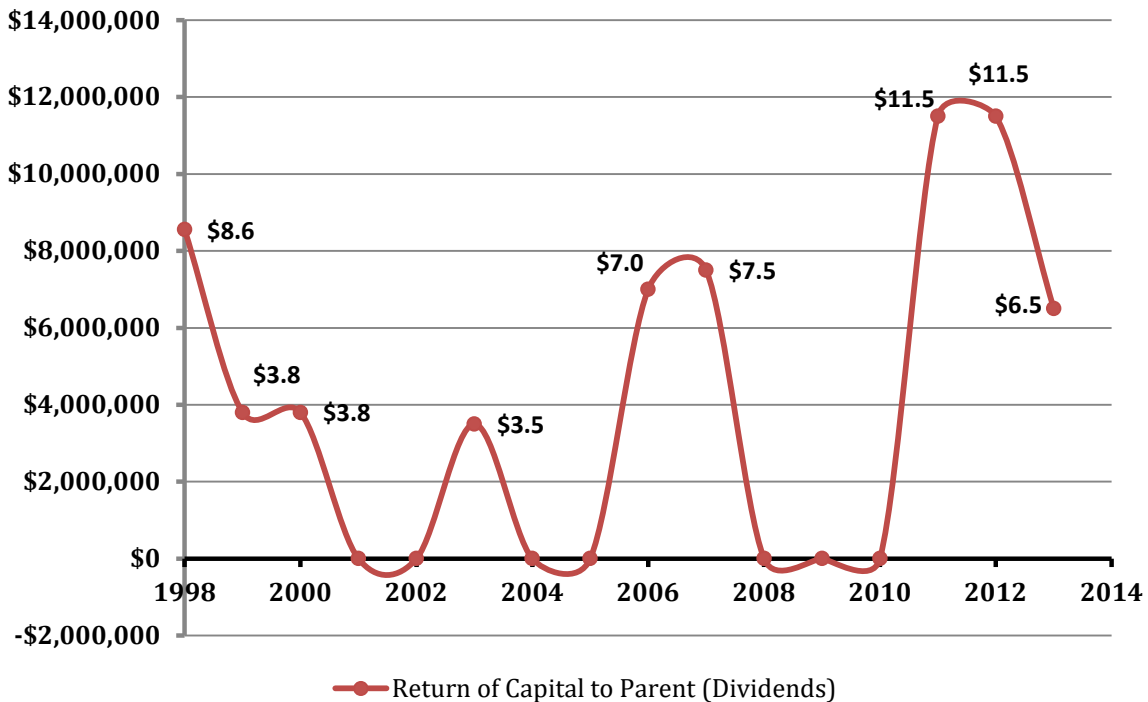
Worse than UPPCO's earnings-based (net income-based) returns was its cash flow to equity based returns. On this basis, UPPCO was severely underperforming, but because UPPCO earnings rolled up to a public utility holding company whose stock price was driven primarily by multiples of its earnings, it can only be assumed that the situation was merely tolerated as long as its earnings didn't become too troublesome and its holding company remained strong. Although UPPCO's earnings gyrated, they cycled much closer to earnings targets a publicly traded utility holding company obsesses over compared to what UPPCO would need from cash flows to operate as a "standalone" utility and fund its growth from operational cash flows.

It is doubtful WPSR, which was on a roll with Wall Street with a seemingly bright future, was too concerned about its little enigmatic electric utility in the UP in the mid-2000s. In 2006 WPSR ranked first in the top spot of *FORTUNE's* most admired list of companies after closing its acquisition of the Michigan and Minnesota Natural Gas Assets of Aquila Inc., and then, newly renamed Integrys Energy Group after a merger of WPSR and the natural gas utility giant, People's Gas, located in Chicago, Illinois, it narrowly missed the top spot in *FORTUNE's* most admired companies again in 2007. UPPCO's cash flows weren't needed to pay shareholder dividends, and accolades were seemingly pouring in with each new acquisition.

Like its tolerance for earnings volatility and returns that only sporadically justified the investment on earnings alone, UPPCO's owner during this period had a similar tolerance in foregoing dividend extraction from UPPCO. It didn't distribute dividends from UPPCO with much frequency, and when it did such distributions were modest relative to its equity investment. Although opaque to UPPCO's customers and quite possibly its regulators to this day, benefits from the "foreign ownership" of the Michigan utility by its Wisconsin (and later Illinois) based utility holding company were inuring to the benefits of UPPCO customers. It was not that for-profit ownership benefited UPPCO but rather it was the *type* of for-profit ownership, the way its owner operated it and geography that offered integrated planning and power supply. It was the publicly traded equity model by a utility holding company with ability to capture fixed cost and power supply synergies from its flagship utility, WPSC, to the south that tempered UPPCO's rates.

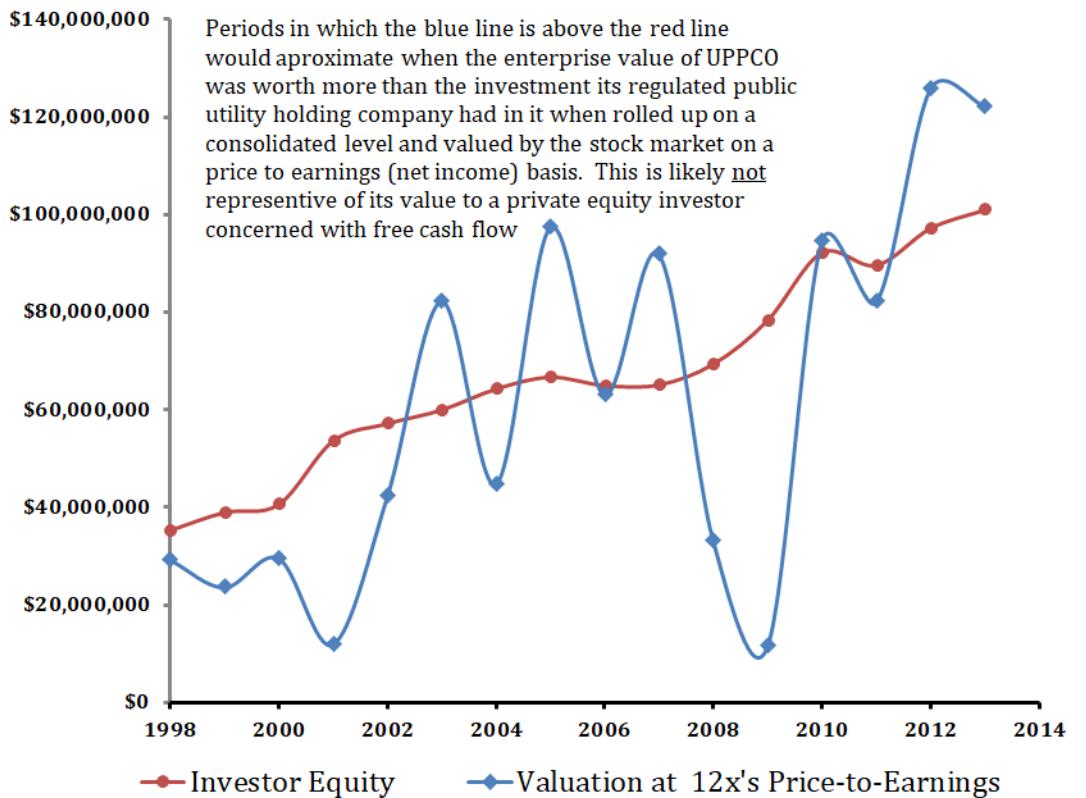
¹³ These numbers are calculated using FERC reported data and can be expected to deviate from MPSC regulatory asset accounting which determines UPPCO's actual regulated return on equity. Unless otherwise noted, all data and associated calculations and analysis in this discussion rely on FERC-reported data (as it is the only readily-available public source of UPPCO financial data).

**Wisconsin WPS Resources / Integrys Energy Group Era
UPPCO Return of Capital to Parent (Dividend) History
(1998 to 2013)**



In the halcyon years of 2006 and 2007 the dividends IEG extracted from UPPCO peaked, but in prior years from 1999 to 2005 WPSR extracted no dividends at all in 4 of those years. However on an earnings basis and in consideration that UPPCO's earnings were rolled up to its holding company, it was less disconcerting. Applying a PE ratio of 12, which is representative of the holding company's PE ratio during the period in which it owned UPPCO, it was valued above or near the equity the holding company invested in it for about half of the years it owned and operated it. Equally important was that other holding company subsidiaries, particularly WPSC, were realizing benefits from holding UPPCO in the portfolio of its parent although to what magnitude cannot be easily determined in retrospect.

Wisconsin WPS Resources / Integrys Energy Group Era
UPPCO Investor Equity, 12x's PE Valuation and Free Cash Flow to Equity
(1998 to 2013)



The End of Integrys Energy Group

Fate would ultimately intervene in staying the hand that was helping to control UPPCO's rates. The financial crisis of 2008 would ultimately lead to exposing cracks in the non-regulated earning engine IEG had enjoyed which helped propel its stature in the market and along with it, its NYSE stock price. It was also struggling with its acquisition of People's Gas in Chicago. On March 5, 1998, the year WPSR closed on its acquisition of UPPCO, its stock price was \$33 per share. On the day it changed its name from WPS Resources to Integrys Energy Group on October 16, 2006, its stock closed at \$51.40 per share. On March 5, 2009, less than 3 years later, Integrys' stock closed below \$20 per share on the New York Stock Exchange. By 2009, its sustainable growth rate, a measure financial analysts use to measure the ability of a company's ability to sustainably fund earnings growth without a need to issue debt or equity, was -9.8%. IEG never fully recovered, and its ability to sustainably fund its pre-2008 ambitious growth projections was in question.

In August of 2014 Integrys reported that it booked a \$51.2 million after-tax gain, net of the \$1.1 million in transaction costs, in the third quarter of 2014 resulting from the \$336.7 million sale of UPPCO to Balfour Beatty Infrastructure Partners, LP (BBIP) of London, England. In November 2014, shortly after selling off UPPCO, IEG sold Integrys Energy Services ("IES") to Exelon Generation Company, LLC's subsidiary Constellation for \$333 million causing IEG to record a pre-

tax loss on the sale of \$28.8 million (\$17.3 million after tax), which included transaction costs of \$4.5 million. In 2007, IES earned \$98 million, and in 2008 the year of the financial crisis, the non-regulated, erstwhile goose laying the golden eggs was just laying eggs. It lost \$61.5 million, but at a consolidated level, IEG was still able to book \$126.4 billion. In 2009, IES, still struggling, earned a meager \$2.5 million, and IEG's regulated gas segment lost a staggering \$172.1 million contributing to a \$70.9 million loss on a consolidated level.

It is almost incomprehensible in retrospect to consider that in 2014 the IEG non-regulated subsidiary, IES, which generated \$98 million in net income in 2007, was sold for \$3.6 million less than the diminutive UPPCO that, by comparison, generated less than \$8 million in total earnings in 2007. Shortly thereafter, IEG ceased to exist altogether when in June of 2015 WEC Energy Group ("WEC") mopped up the totality of what remained of IEG (which was mostly regulated subsidiaries) by acquiring its stock. The much more financially robust WEC was flush with cash and buying back its stock, and it needed to deploy underutilized generation resources in Wisconsin. The acquisition was very lucrative for both IEG and WEC shareholders. WEC's executives wasted little time scuttling the remainder of IEG's non-regulated subsidiaries and put People's Gas back on the straight and narrow by settling highly publicized allegations by the Illinois Commerce Commission and the Illinois Attorney General against Peoples Gas under IEG ownership. In the UP, Michigan would welcome a new utility, Upper Michigan Energy Resources Company ("UMERC"), resulting from the consolidated of the Michigan operations of WEPCO and WPSC (now both under WEC's holding company umbrella).

The New Private Equity ERA (2014 to Present)

Like WPSR, BPIIP might have fallen victim to UPPCO's ineffable charms after a courtship too brief to fully appreciate the possible aftermath of the fascination that led to acquiring it.....or maybe it knew exactly what it was getting into. Seemingly, UPPCO was alluring enough that BBIP purchased the little utility even though the entity that owned BBIP, Balfour Beatty Investments ("BBI"), was experiencing difficulty during the period in which BBIP acquired UPPCO. "Between 2012 and 2016, Balfour Beatty issued seven profit warnings; lost two chief executives, a chairman and a finance director; and called in KPMG to carry out an audit."¹⁴ BBI sold BPIIP in June of 2016 so the appearance may be that BBI gnawed off its arm, BBIP, to make its escape from UPPCO after waking to realize what it had done, but there is no evidence of correlation or causation. Looking from the outside in, it is impossible to know if BBIP's investment portfolio was a contributor to BBI's ills or a boon, and UPPCO and BBIP were still very much in the honeymoon period without much empirical financial data, operational experience or regulator engagement to suggest BBI developed an acute sense of buyer's remorse.

Nonetheless, the acquisition in 2014 was accompanied by public statements from BBIP about its alignment with its strategy to make long-term investments, and that as long-term investors they were committed to maintaining safe and reliable customer service, which, of course is not only comforting but obligatory. Additionally, they were excited about providing UPPCO with "the capital

¹⁴ Michael Dunning, "Balfour Beatty Investments Targets Core Market Consolidation," *InfraNews*, accessed March 6, 2019, <https://www.balfourbeatty.com/media/244552/ian-rylatt-balfour-beatty-investments.pdf>.

necessary to maintain and improve its existing delivery infrastructure.”¹⁵ The press release was long on messaging about investment and deploying capital, but short on discussion about how that was to be done while managing UPPCO’s rates which were some of the highest in the U.S. The rhetorical arm BBI might have appeared to suddenly chew off in June of 2016 was renamed Basalt Infrastructure Partners (“Basalt”), but its managing partner was BBIP’s former managing partner who accompanied by two additional partners currently operate UPPCO as well as a number of other private equity infrastructure investments totaling over \$2 billion in assets.

BBIP’s interest in UPPCO was curious from the start and certainly a rough road to make entry into the U.S. regulated electric utility market. Providing for safe and reliable electric utility operation may be obligatory under state law, but what is not are guaranteed allowable returns on investments that lie outside a demonstrable need to fulfill that obligation (regardless of need) that push the rates to levels that mobilize large numbers of customers. Utility investors earn financial returns on long-term equity investments, but if formidable barriers exist to making such investments, such as high retail rates resulting from the higher costs required to operate and maintain a Disadvantaged Utility, investment becomes extremely difficult. Investments, unless the costs can be offset with equal or greater savings in operational expenses (e.g. power purchases, generation, distribution operation and maintenance, salaries, etc.) will raise rates. Utilities not only must first replace depreciating rate base assets just to hold ground on earnings, they must increase investments above that rate of depreciation to make headway in investor earnings growth.

As regulatory assets depreciate so do the revenues regulators calculate to allow an investor to earn their allowable return on equity, but the investors’ equity stays the same – the same way an investor hopes their investment (equity) in a mutual fund or stock doesn’t just evaporate with depreciating assets of the companies in which they’ve invested. So, less revenues generated from fewer regulatory assets with the same amount of investor equity means lower returns on equity to investors (assuming no change in operating expense). Private equity investors traditionally seek to “lever up” their investments with debt because debt is less expensive than equity. It can be conceptualized this way: interest rate on bank loans or bonds paid by a company is less than the return on investment its equity investors (e.g. stock holders) in that company expect. This is because the bank and bond holders get paid first and the equity investors last, so the equity investors take more risk.

As a result, private equity firm likes to finance as much of their investments with debt as possible because it is cheaper. More cash flows to less equity [investors] thereby generating higher returns on equity than would otherwise be realized using less debt funding. Of course, it is not possible to deploy as much investor capital this way, but if there are a lot of investors and the private equity fund is successful, the firm just seeks out more acquisitions. The problem is private equity investors can’t easily employ leverage straightaway in this manner with regulated utility investment because regulatory commissions don’t want debt laden utilities. Regulators greatly prefer utilities that are financially stable and robust (thus the higher allowable returns on equity

¹⁵ “Integrus Energy Group Agrees to Sell Upper Peninsula Power Company to BBIP,” *Market Watch*, accessed March 6, 2019, <https://www.marketwatch.com/press-release/integrus-energy-group-agrees-to-sell-upper-peninsula-power-company-to-bbip-2014-01-20-131592132>.

that are often granted than financial models might suggest are warranted relative to the market portfolio).

UPPCO's 2014 Extraordinary Capital Structure Changes

Utility regulators like to see more equity than debt in utilities they regulate. With most utilities, most of which are publicly traded or held by publicly traded utility holding companies with strong balance sheets, if there isn't sufficient cash flow to pay equity holders (which rarely happens) it is not nearly as disruptive as missing debt payments. If a utility misses enough debt payments and must declare bankruptcy, the debt holders become owners of the company. No one wants that, not even the debt holders (banks or bond buyers); they do not want to take over the responsibility of owning and operating a utility. This, of course, means the financing structure of a regulated utility is more costly for rate payers, but it is seen as more stable. With this in mind, BBIP couldn't lever up its financial structure for UPPCO at the utility level. In evidence, the June 3, 2014 MPSC approval of the BBIP acquisition of UPPCO as a 100% capital stock sale and required the new owner to maintain a capital structure that had no less than 45% and no more than 60% equity through December 31, 2015.¹⁶

Because utility equity is usually directly tied to investors ownership in a utility's regulated assets and equity plays a key role in how investment performance is measured against allowable return on equity (both by investors and regulators), UPPCO's first year, post-acquisition balance sheet of the now private equity owned UPPCO leaps off the page. This is even more so considering the nature of investor ownership change with the 2014 sale of UPPCO. In general terms, private equity firms seek to leverage their investments and operate with higher debt-to-equity ratios. BBIP is a private equity firm so it begs to be explored why UPPCO's debt and equity increased so extraordinarily with acquisition of UPPCO, but its debt-to-equity level remained the same thereby gaining no direct financial leverage advantage. Arriving at an answer to how the mechanics worked resulting in the significant increase to UPPCO's debt and equity is a bit complex but knowable; however, BBIP's motivation behind the decision that lead to then pursue such a mechanism which resulted in the extraordinary changes to UPPCO's balance sheet cannot be definitively ascertained.

BBIP's ADIT Election upon Purchase of UPPCO

The indirect answer as to why UPPCO's debt and equity increased so dramatically is in testimony provided by UPPCO's Chief Transition Officer ("CTO"), initially hired as a consultant by BBIP to provide due diligence during the acquisition and then becoming CFO for a time. But, in March of 2016 the former CFO was back to explaining (indirectly) what caused UPPCO's balance sheet to change so dramatically. UPPCO's CTO testified that UPPHCO, the holding company BBIP setup now holding UPPCO, made an election for tax purposes that for UPPCO (now owned by BBIP through UPPHCO) resulted in an "important implication" of "a Section 338(h)(10) election in that UPPCO's pre-sale ADIT of approximately \$70 million is eliminated, and since ADIT liability balances are treated as a deduction from rate base, *this will increase the size of the rate base that earns a return*

¹⁶ "Settlement Agreement in the Matter of the Joint Application of Integrys Energy Group, Inc., Balfour Beatty Infrastructure Partners, L.P. and Upper Peninsula Power Holding Company for Approval Pursuant to MCL 460.6q of the Transfer of Control of Upper Peni" (n.d.).

[emphasis added] by the size of the previous net ADIT liability balance”. Rather than treating the sale of UPPCO as a stock sale as [generally] described in the settlement agreement for the sale of UPPCO, for tax purposes, it was treated as a sale of the assets by IEG and a purchase of those assets by UPPHCO which resulted in the ability to pursue the ADIT election.

The rate base assets that “earns a return” UPPCO’s CTO referred to increased but presumably didn’t require a need for an incremental cash investment either by raising equity from new investors or through additional contributions from existing equity investors. Although the increase in assets did not represent an incremental addition of property, plant and equipment to operate the utility, the utility’s assets increased dramatically as a result of the ADIT accounting with an associated dramatic decrease to its liabilities when the pre-sale ADIT account was eliminated. The result was a significant imbalance between the assets and equity and liabilities of the utility creating a massive gap between UPPCO’s assets and its equity and liabilities which had to be rebalanced. To accomplish this re-balancing, UPPCO’s equity was increased – presumably by some portion of the amount reported in UPPCO’s 2014 FERC filings under its paid in capital account with an equity increase of \$75.3 million labeled “Contribution of Capital from Income tax election of UPPHCO”.

**Simplified Balance Sheets for UPPCO and Year-Over-Year Incremental Changes
(2012/2013 and 2013/2014)**

	2012	2013	2014	2012/2013 Changes	2013/2014 Changes
Assets	\$298,130,807	\$284,614,436	\$350,997,718	(\$13,516,371)	\$66,383,282
Equity	\$97,191,761	\$100,956,273	\$182,565,929	\$3,764,512	\$81,609,656
S.T. Debt	\$55,000,000	\$60,000,000	\$108,000,000	\$5,000,000	\$48,000,000
L.T. Debt	\$11,925,000	\$8,900,000	-	(\$3,025,000)	(\$8,900,000)
Liabilities	\$134,014,046	\$114,758,163	\$60,431,789	(\$19,255,883)	(\$54,326,374)

Now having increased the equity directly resulting from this accounting election, UPPCO was able to increase its debt without violating its debt-to-equity requirements set by the MPSC as a condition of its purchase of UPPCO. The obvious effects of the ADIT adjustments can be seen in the simplified balance sheet in the changes from 2013 to 2014 as compared to a more typical year-over-year change (e.g. from 2012 to 2013 as shown). However, it should be noted that the balance sheet reflects all account changes during the year; nevertheless, the most eye-catching change following the BBIP acquisition of UPPCO is the increase in equity of \$81.6 million and a net increase of debt of \$38.1 million representing 81% and 57% increases respectively. UPPCO was barred from requesting a rate increase as part of the purchase of UPPCO until January 1, 2016, but in UPPCO’s first request for a rate increase (U-178595) since BBIP purchased the utility in 2014, despite the protests of CARE, the Administrative Law Judge (ALJ) approved the ADIT accounting adjustment. “UPPCO asserted that CARE’s recommendation should be rejected because the settlement

agreement in the transfer case, which was signed by CARE, provided for a revenue offset for certain transaction-specific costs including the change to ADIT.”¹⁷

Ultimately, the ALJ found, “UPPCO provided ample evidence, both testimony and exhibits, explaining the adjustment to ADIT and support for its contention that the revenue offset approved in the settlement agreement in Case No. U-17564 (docket for the IEG sale of UPPCO to BBIP) was intended to mitigate the impact of the ADIT adjustment.”¹⁸ The revenue offset referred to was \$26 million to be returned to rate payers over 6 consecutive years. It is not clear if the revenue offset negated the impacts of the recovery cost of the regulatory assets account created *and* the effects of adding \$38.1 million in UPPCO long-term debt (which appears to have increased the utility’s annual debt service by approximately \$1.3 million per year) and the reported one-time FERC reported debt issuance cost of \$1.2 million in 2014.¹⁹

The Terms of the Sale of UPPCO

In January of 2014 when the sale of UPPCO was announced (and presumably anticipated) as a stock sale for tax purposes, it was reported that IEG was selling UPPCO for \$298.8 million subject to adjustments for capital expenditures and working capital changes made in the year prior to close. The book value of UPPCO at the end of 2013 reported to FERC was \$284.6 million so this would have represented a purchase price over the book value of its assets of \$14.2 million. The sale of the utility on an asset basis (allowing the ADIT adjustments) resulted in a much different deal. IEG reported in its 2014 SEC 10-K report that UPPCO was sold for \$336.7 million resulting in a pre-tax gain of \$85.4 million and post-tax gain of \$51.2 million net of \$1.1 million in transactions costs. This purchase price exceeded UPPCO’s 2013 book value of assets reported to FERC by \$52.1 million versus the \$14.2 million originally announced in January of 2014 (a difference of \$37.9 million).

As a result of a change from a stock sale to an asset sale for tax purposes which allowed the ADIT election, as UPPCO’s CTO testified, Integrys was required to “recognize a capital gain on the difference between tax basis of the assets and purchase price (ADIT)”.²⁰ It is not known how much this gain was; however, if the original sale was to transact at a price of \$14.2 million above the FERC reported book value of UPPCO’s assets and the final deal resulted in a sale at \$52.1 million above UPPCO’s FERC reported book value, barring other significant changes, one might assume some (or all) of the \$37.9 million difference represents IEG’s cost impacts from the ADIT election and other tax-related effects. BBIP increased UPPCO’s debt as reported to FERC by approximately \$38.1 million. The result of all the changes in cash flows due to financing activities in 2014 (which were substantial owing to the transaction) was \$11.8 million. It might be speculated that \$26.3 million (\$38.1-\$11.8 million) of the increase in UPPCO’s debt reported at the utility level made possible by the ADIT transaction can be viewed as utilized to pay the \$37.9 million increase in purchase price of UPPCO from the time the sale was announced in January 2014 as contemplated as stock sale (as it

¹⁷ “Upper Peninsula Power Company Power Company for Authority to Increase Retail Rates, Case No. U-17895)” (n.d.),48

¹⁸ Ibid.,48

¹⁹ No attempt has been made to retrieve or analyze the exhibits to attempt a reconciliation of the \$26 million in revenue offsets with the associated cost benefits and impacts related to the ADIT election.

²⁰ “Rebuttal Testimony of Steve Manz for Upper Peninsula Power Company in Case No. U-17895,” n.d.,7

relates to tax purposes) to August 2014 when the transaction closed as a purchase of its assets (as it relates to tax purposes) with the accompanying ADIT election.

It appears that BBIP pursued the ADIT election without prior-MPSC approval, which the MPSC later tacitly approved ex-poste by accepting BBIP's testimony that the \$26 million revenue offset neutralized the effects, but the transaction, while legal, had a substantial impact on UPPCO's capital structure. So much time was spent in testimony with noses pressed up against what interveners saw as the elephant in the room in the form of the creation of the ADIT election that created the regulatory asset account, the issues surrounding UPPCO's pension funding and the \$26 million revenue offset BBIP testified addressed these issues, that no one seemingly noticed (or possibly cared much about) the brontosaurus sauntering across the stage behind the elephant. That brontosaurus was an 81% increase in UPPCO's equity and an 81% increase in its long-term debt (a 57% increase in total debt net of short-term debt retirements).

Integrys Energy Gains on Sale of UPPCO
Actual SEC Reported vs. Initial January 2014 Announcement

	IEG SEC 10-K Report December 2014	IEG/BBIP Announced January 2014 (Reconciliation w/ Actual)
Reported Sale Price	\$336,700,000 [†]	\$298,800,000 ^ψ
SEC Reported Total Assets	(\$291,500,000) [†]	(\$291,500,000) [†]
Total Liabilities	\$41,300,000 [†]	\$57,800,000*
Taxable Gains on Sale	\$86,500,000	\$65,100,000
Transaction Costs	\$1,100,000 [†]	\$1,100,000 [†] *
Pre-Tax Gain	\$85,400,000 [†]	\$64,000,000
Estimate Capital Gains (~20%)	(\$17,700,000)*	(\$12,800,000)*
Estimated Tax Impl. of ADIT	(\$16,500,000)*	-
After-Tax Gains	\$51,200,000 [†]	\$51,200,000

[†] Reported to SEC in Integrys Energy Group 10-K annual reporting for 2014

^ψ Announced publicly by IEG and BBIP in January 2014

*Author estimated values. The methodology to reconcile the January 2014 announced sale price with the actual sale price as transacted in August 2014 results in a minor difference in capital gains tax rate (20.73% vs 20%).

It is impossible to determine the exact disposition of the increased debt funding resulting from BBIP's purchase of UPPCO from FERC filings because of the extraordinary activity on its cash flows from financing reported to FERC in 2014. These activities included retirements of UPPCO's short and long-term debt (\$68.9 million) and issuance of new long-term debt (\$108 million) with \$120.7 million reported to FERC as paid out to parent; however, there is no public view into financing activities related to UPPCO at the parent level, i.e. at the holding company/parent (UPPHCO) level. However, to some extent it is superfluous information at this level of detail because the most critical impacts – i.e. the net effect of the changes to the major components of UPPCO's capital structure - are transparent and contained within UPPCO's financial reporting to FERC at the utility

level. The appearance is that the increase in UPPCO's debt primarily helped finance the premium above book paid for UPPCO by BBIP, but if that is the case, there is no clear explanation as to why UPPCO simply wasn't purchased at the January 2014 announced price, at a much lower premium to its book value, and circumvent the radical capital structuring of UPPCO's balance sheet.

UPPCO testimony states that *some* portion of the \$26 million in revenue offsets was to "help" neutralize investor benefits and customer impacts of the ADIT election.²¹ Testimony indicates this \$26 million was to "help mitigate a number of transactional things, including the ADIT and the pension adjustment"²². Therefore, to *fully* offset these impacts of the ADIT election some amount, i.e. less than the \$26 million in revenue offsets spread over six consecutive years following the sale of UPPCO, would be needed to neutralize 1) the cost of capital recovery on the newly created regulatory asset account; 2) a major portion of the approximate \$1.3 million increase in annual cost of debt service resulting from a significant increase in UPPCO's long-term debt; and 3) that portion of the \$1.2 million, one-time direct debt issuance cost in excess of the cost that would have been incurred had BBIP not pursued the ADIT election.^{23,iv} It is odd that there seems to be no discussion of record of what the specific, quantifiable benefits to UPPCO's new investors and its customers would be realized from this ADIT election. The financial effects on UPPCO's balance sheet and income statement are discoverable, but one can only engage in some level of informed speculation on what the effects of the ADIT election might be from a regulatory perspective.

On the surface, the benefit to UPPCO investors would be limited to net cost benefits inuring to customers which would translate into relieving rate pressure from retiring the deferred tax liabilities, i.e. creating much needed "rate headroom" for future capital investments as well as some modest benefit of higher free cash flow to equity for investors because of the tax deductibility of increased debt (assuming the cost of debt is borne completely by customers). For UPPCO customers, assuming related negative cost impacts were *all* neutralized by some portion of the \$26 million in revenue offsets, the cost benefits had to result from the relief of an obligation to pay future taxes on the deferred income tax account which was retired.

The choice of the sale transaction methodology had no effect on the operations of the utility in a way that improved its ability to serve customers' load nor did it increase its operational cash flows by decreasing its operational costs or reduce its operational risks. Since both the nature of the annualized impact of future payments of the retired deferred tax account and the increase in debt should have been known (and capable of rather precise financial modeling) the decision to pursue the ADIT election should have presented little risk to investors and customers. However, risk is a measure of uncertainty of benefits not benefits themselves. There is insufficient information to attempt such an analysis as part of this discussion; nonetheless, BBIP's choice to increase UPPCO's debt so significantly, even though it didn't increase its leverage (if one is to assume all equity reported on UPPCO's balance sheet is equal), was not free.

²¹ The use of the word "help" rather than terminology such as "fully offset" may be a difference with significant distinction.

²² "Rebuttal Testimony of Steve Manz for Upper Peninsula Power Company in Case No. U-17895.", 297

²³ Since in January of 2014 IEG and BBIP originally announced that UPPCO was to be purchased at a price \$14.2 million above its 2013 FERC book value, some additional debt (at a ratio within the range of its approved debt-to-equity structure) would have been necessary even without the ADIT election to fund the purchase.

BBIP increased UPPCO's debt service costs, and that liability should have perfectly matched the asset (in this case the gains from retiring the deferred taxes), and the \$26 million revenue offset should have perfectly offset capital recovery on the ADIT-created regulatory asset (and arguably the appropriate portion of the one-time debt issuance fee for increasing UPPCO's debt). As previously stated, no attempt has been made to verify this was all in balance, but the increase in equity should not go unnoticed in revisiting this issue. UPPCO's total equity increased even more dramatically than its total debt (81% vs. 57%), and since equity typically represents investors' financial stake in a utility that is at risk of payback and equity investors are supposed to be paid only after debt holders, it is of interest to better understand what these somewhat extraordinary changes that accompanied BBIP's purchase of UPPCO might look like through a conventional financing lens and in consideration of the principles of the regulatory pact.

When is Equity Really not Really Equity?

UPPCO's ADIT-Generated "Synthetic Equity"

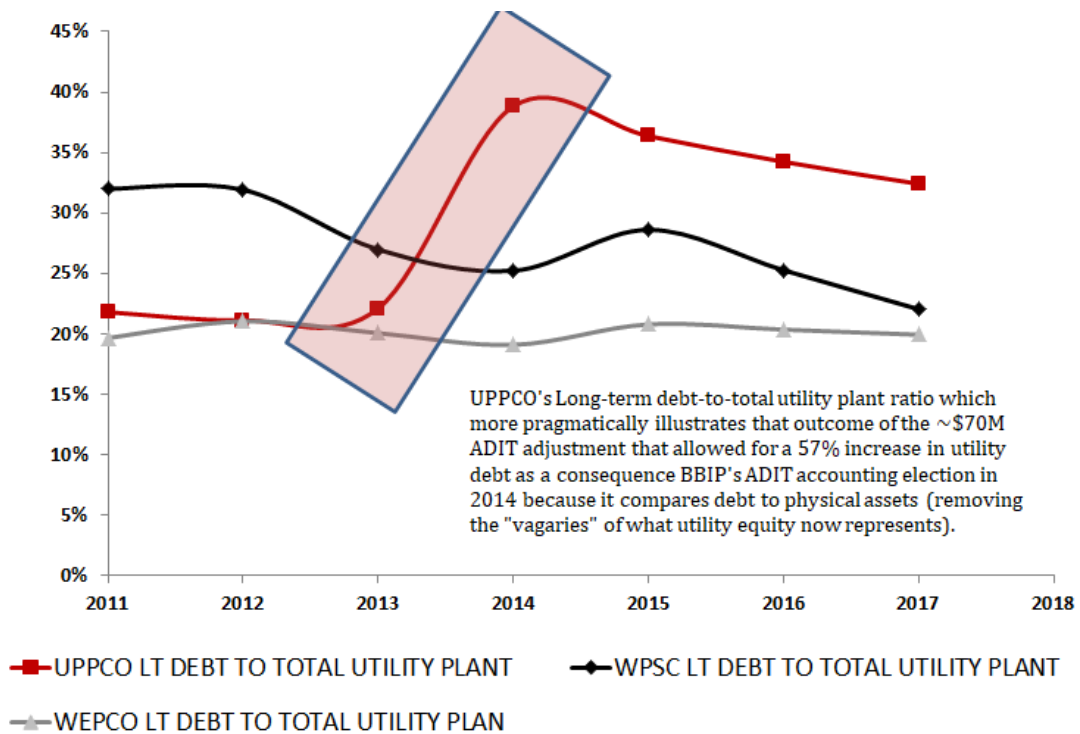
It appears the equity that was added to UPPCO's balance sheet as a result of the ADIT accounting election was the result of an extraordinary accounting adjustment. It would be irrational for equity investors to inject \$70 million of additional equity investment into a utility that consistently earned below its cost of equity capital. It would needlessly dilute equity and reduce returns to existing equity investors. For this to be rational some change to its future free cash flows to equity would need to result in a present value benefit of [approximately] \$70 million dollars discounted at the investors' expected return. The capital returns on the regulatory asset account that the ADIT adjustment created that the equity helped balance were reportedly neutralized. Consequently, no earnings were to be generated from these assets, and this equity didn't underpin any additional investments in property, plant and equipment or influence operational conditions of UPPCO.

The net effect of capital structure changes resulting from the ADIT election also created a massive spike in UPPCO's long-term debt-to-total utility plant ratio that prior to the sale to BBIP ran closer to both WPSC and WEPCO ratios. The increase in UPPCO's net utility plant from 2013 to 2014 was only 2.3% and although it has since increased by 23%, this is well short of the 57% increase in debt resulting from the acquisition, and these increases have been accompanied by increases in short-term debt of approximately \$7.8 million since 2014, on its way to equaling the \$8.9 million in its outstanding short-term debt that BBIP retired in 2014 as part of the acquisition. From an UPPCO investor perspective, the strategic or tactical reasoning that drove the decision to pursue the ADIT election are unknown. It is possible it resulted from a very naïve and cursory interpretation of the regulatory pact which presumed a subjugation of the duty of the MPSC to regulate in the interest of the public good to granting (or worse, guaranteeing) utility investors a reasonable return on investment.

If the regulatory pact recognizes a reasonable return on equity commensurate with risk of return, but the equity does not represent a "cash" investment underpinning utility operational assets what exactly is the risk borne by the investor on such equity? A reasonable question might be raised if this equity is an analog to traditional utility investor equity consistent with the letter - or even the spirit - of the regulatory pact in recognizing and granting an equity investors' right to earn a

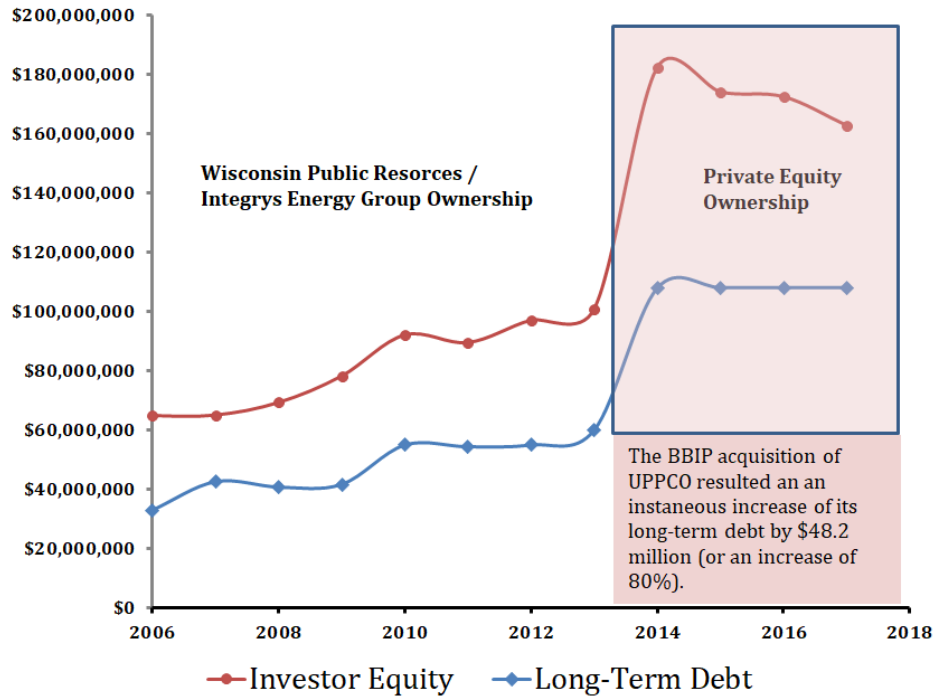
reasonable return on their investment if the ADIT-related equity represents nothing more than an accounting balancing entry. The equity created and placed on the books acted to offset the regulatory account created by the ADIT election. It does not reflect actual incremental capital invested by UPPCO's current investors or capital raised from any new investors. In a sense, it is "synthetic equity" and in principle arguably not interchangeable with the true investment equity the regulatory pact is designed to recognize as eligible for returns commensurate with investment risk.

UPPCO, WPSC and WEPCO Long-Term Debt-to-Total Utility Plant (2011 to 2017)



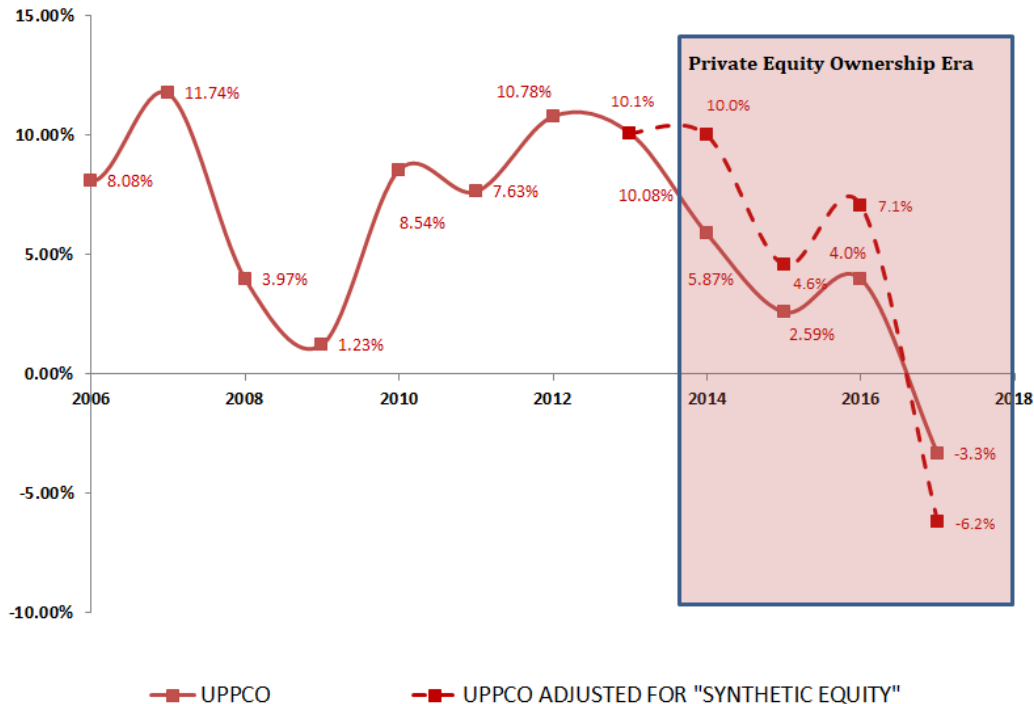
There was no true risk of return to investors resulting from the synthetic equity created by the ADIT election: cash was not generated from its creation (it does not appear as a source of cash from financing activities in UPPCO's 2014 FERC reporting) nor is it subject to any of the traditional risks of incremental equity investments in property, plant and equipment which might take the form of failing to effectively hedge the costs of operating UPPCO and result in lower than expected returns to equity investors who might wear that risk. The capital return impact of the regulatory asset account that accompanied the ADIT election tied to the synthetic equity was reportedly neutralized by the \$26 million revenue offset offered by BBIP and approved by the MPSC. This protected customers for being charged directly in its rates for the ADIT election; however, this is only a first order analysis and does not address a potential second order effect.

UPPCO Debt and Equity (2006 to 2017)



The second order effect is whether it is appropriate to include this synthetic equity in the calculation of UPPCO's revenue sufficiency calculation in determining its actual returns on equity (not to be confused with its allowable revenues calculated in advance of actual collection). If it were not a regulated entity, an investor would not include the equity in their return performance measures because it doesn't represent a true [personal] investment at risk. However, in the regulated environment if the synthetic equity generated as a result of the ADIT election is included in the denominator of UPPCO's revenue sufficiency calculation it will *underestimate* UPPCO returns to equity in a manner which is inconsistent with the principles of the regulatory pact. If this synthetic equity is included in the denominator this means that whenever MPSC considers UPPCO's attainment of its allowable return on equity when setting its future rates, it would have a tendency to set its future rates higher than it otherwise might.

**Estimated Net Income-Based ROE
With and Without ADIT-Created “Synthetic Equity”
(2006 to 2017)**



If this is the case, the result is a perpetual distortion to UPPCO’s future rate-making process. The ADIT-generated synthetic equity does not represent investor risk in the way in which the regulatory pact contemplates in rewarding utility investors for risk-taking. The synthetic equity doesn’t represent an investment which generated cash for additional physical asset investment. Arguably, the only increase in risk to UPPCO’s investors was the self-inflicted and voluntary creation of more utility debt because the capital returns on the asset created were supposedly neutralized. The debt-to-equity structure of UPPCO nor its allowable return on equity were altered resulting from the ADIT election; therefore, the calculation of its revenue requirements on its regulatory assets – which the ADIT created regulatory account presumably now includes – does not increase. Neither would its rates if the \$26M revenue offset negates the customer impacts.

However, rates will increase if the MPSC authorizes additional revenue collections to account for the fact that UPPCO is underearning against its allowable return on equity if the synthetic equity creates the *appearance* of a greater gap in actual [higher] earnings measured against its allowed earnings on equity. This will be the case if the MPSC is operating under the illusion that it must increase UPPCO’s rates to close a greater gap than actually exists. This is a *theoretical* cause and effect based a perfect application of the regulatory pact; unfortunately, theory and reality don’t often converge with UPPCO so it is necessary to further explore the issue. It is possible that BBIP’s decision to pursue the ADIT election was an attempt to benefit from this obscure, second order effect creating this synthetic equity, taking on the risk of more utility debt to profit from the

appearance of lower returns on [true] investor equity. However, this would seem unlikely and a risky decision if it were in fact a conscious strategy.

First, there was no guarantee that MPSC would not demand more in revenue offsets than the \$26 million BBIP offered. Secondly, there was also no certainty that if the MPSC was possibly handcuffed into allowing the ADIT election and accepting the \$26 million of how the Commission was going to treat this 81% increase to equity as it relates to inclusion or exclusion in the denominator of the revenue sufficiency test for UPPCO moving forward. BBIP had already made the ADIT decision which would have been a speculative strategy based on very uncertain outcomes; therefore, it remains somewhat of a mystery. IEG clearly received a much larger check from BBIP for UPPCO and earned much higher pre-tax gains on the sale. However, it is reasonable to assume that since the deal in principle for the sale of UPPCO was already agreed upon before the ADIT election decision that the purchase price paid to IEG should have only neutralized the incremental costs created from settlement of the tax deferral account (and other tax implications) and not further enriched IEG at BBIP's and UPPCO's customers expense.

Only a very rough estimate of the comparative IEG accounting for the sale of UPPCO as a stock purchase for tax purposes (aligning to the January 2014 announced purchase price) to that which actually occurred resulting from BBIP's asset purchase ADIT tax election (from the transaction which closed in August of 2014) can be constructed. There is insufficient public information, including the information regarding the tax basis of the UPPCO's assets, to determine differences in post-tax gains with certainty. Therefore, not much can be definitively concluded (or even speculated), including that UPPCO's seller (IEG) somehow influenced the ADIT decision for some gain to IEG even though the ADIT election was the buyer's (BBIP's) elective decision. Much like the minutia of the details associated with the ADIT-induced capital structure changes and how they were used for financing the purchase of UPPCO, the exact reason why BBIP determined an ADIT election was in its best interests is somewhat superfluous information. UPPCO's post-acquisition financial performance is the important indicator of whether BBIP's \$336.7 million purchase price appears warranted.

The Hidden but Persistent Risk of the Effects of Regulation for the Public Good

The effect of a "strategy" to game a regulatory process which habitually underestimates the actual return on equity may have some advantages in the case where a large, Advantaged and highly efficient utility is overearning, but in the case of highly Disadvantaged Utility like UPPCO it could likely do more than needlessly contribute to driving up its costs for customers with no benefits to investors. This is because of the effects of regulation of electric markets as a public good or "PGRE" for short. Any seasoned utility regulatory expert understands the premise behind PGRE (regardless of whether they have attached a formal name to it). PGRE is nothing more than the obligation of utility regulators to set rates in a manner which considers the consequential impacts of utility decisions on utility customers. This obligation both coexists with its obligation under the regulatory pact to grant utility investors reasonable rates of returns *but it also operates independently of it.*

This can be more clearly stated as follows: the fact that a utility is operated as efficiently as possible, and that its owner/operators are owed a reasonable return on investment in accordance with the regulatory pact has no mitigating effect on whether a regulator will suppress revenue collections if rate impacts on the utility's customers are extraordinary or deleterious. PGRE is the manifestation of the very inefficiency of utility regulation itself, and it asymmetrically impacts highly Disadvantaged Utilities such as UPPCO. Therefore, any strategy meant to benefit UPPCO investors that included even modest cost increases its customers resulting from the ADIT election and extraordinary capital structure changes would inevitably run headlong into PGRE. Not only would that strategy most certainly fail, it might just as easily result in the opposite intended outcome. If debt financing costs which increased immediately (in this case by approximately \$1.3 million per year) are not at least equal to the cost of deferred taxes that were retired, this would fuel additional PGRE which would only incite regulators to tamp down further on revenue collections. This could create a negative feedback loop.

As PGRE becomes even more pronounced there is even less regulator focus and obligation toward prioritizing investor attainment of allowable returns and instead an increasing focus on placing a priority on controlling rates. The ultimate irony is that this situation is exacerbated if the utility is operating as cost effectively as possible because there is simply nowhere for a Disadvantaged Utility like UPPCO to cut costs to increase returns to investors or generate more retained earnings to fund future capital investments without a need to inject more equity (further diluting equity investor returns). Constraints of regulated debt-to-equity ratios will not allow the issuance of debt out of balance with equity to fund growth. In the end, it is not possible to evaluate if the net effects of the ADIT transaction were positive or negative relative to customers interests as part of this analysis; rather, it is only possible to take measure of the obvious resultant capital structure changes. Possibly worse for a Disadvantaged Utility than any negative feedback loop created from by an ADIT election resulting from a misguided strategy to create synthetic equity would be having relied too heavily on a financial engineering technique common in the utility sector that has the effect of further muddying what equity appears to be versus what it actually is in reality.

Double Leverage

Equity may not be what it appears for some utilities for yet another reason. Some utility owners employ a financial engineering device known as "double leverage" which is the practice of using debt to fund the equity that is used to capitalize a utility at the holding company level. Not unlike how PGRE more asymmetrically negatively affects a Disadvantaged Utility, double leverage - if exploited to insalubrious levels - will impose similarly harsh penalties upon a financially weakened Disadvantaged Utility laboring under elevated PGRE pressures. Detecting double leverage is a bit difficult. It isn't real equity, and it distorts the equity investors' true stake in an asset. In the case of a utility subsidiary leveraged at its holding company level, it can mask true levels of equity investor financing. The issue becomes that dividends that are drawn off at the subsidiary level do not flow straight to equity investors; rather, the debt holders at the holding company level must be paid first.

Discounting the risks of double leverage, the benefit is that less equity (or equity investors) are needed, meaning free cash flows to equity are higher per dollar of equity (or investor), i.e. return on

equity is higher than it appears at the subsidiary (utility) level²⁴. Conversely, the danger to an investor in utilizing such an artifice is that debt service payments can become excessive and free cash flows to equity holders after paying debt holders result in subpar returns to equity investors, i.e. the opposite of the intended outcome. When double leverage risks surface, the result might take the form of a downgrade in debt rating (and ironically a demand for higher interest payments). Aside from direct financial risk resulting from too much leverage, Moody's Investor Service warns "the practice poses risks down the road if regulators were to ascribe the debt at the parent level to the subsidiaries or adjust the authorized return on capital".²⁵

In the worst of the worst cases, cash flows fail to cover the full debt service payments and an inability to rectify would drive the enterprise into default on its debt, at which point debt holders become the new equity owners of the enterprise. The use of double leverage can work against the regulator's purpose of instituting debt-to-equity restrictions at the utility (subsidiary) level if the utility holding company becomes financially weakened by too much debt causing a contagion that affects the subsidiary utility. The use of double leverage would be impossible to detect from the use of FERC reports (the data used for analysis conducted as part of this whitepaper) because financial information is reported at the utility level. However, in testimony by the MPSC staff in February of 2019, it is revealed that UPPHCO (UPPCO's holding company) is carrying \$200 million in debt and equity of \$101,096,670 while UPPCO is only reporting \$108.2 million in debt and \$154,382,586 million in equity.²⁶

From this testimony, it is clear to see that UPPCO is reporting \$53,285,916 more in equity at the utility which one can speculate is owing, primarily, to the ADIT-generated equity. The additional \$91.8 million in debt at UPPHCO is substantial, and it is necessary to return to the BBIP acquisition of UPPCO in 2014 in an attempt to estimate what the true debt and equity levels are that finance the utility with what limited public information is available. It is estimated that of the \$336.7 million paid for UPPCO by Basalt that only \$34 million of actual investment capital may have been put into the capital structure. It is impossible to determine an exact number from only public sources of information. The discussion of double leverage here is to illustrate how equity can masquerade as something it is not and to highlight how Disadvantaged Utilities exposed to higher levels of PGRE may be more susceptible to risks from such aggressive forms of financial engineering as compared to larger more Advantaged Utilities that might employ the same techniques without suffering the same consequences. Double leverage has benefits to investors and may not negatively impact customer rates (if used within reason), but it does not come without risks if leverage levels increase the fragility of financial security resulting from an ability to withstand financial shocks. Financial shocks for an IOU can include periods of forced rate austerity by regulators, and one would expect this to be a greater risk with a Disadvantaged Utility than an Advantaged Utility.

²⁴ The difference of the cost of equity and debt for the amount levered flows through to less equity investment thereby increasing the effective returns on equity.

²⁵ "High Leverage at the Parent Often Hurts the Whole Family," *Moody's Investor Service Infrastructure and Project Finance*, accessed March 6, 2019, https://www.utc.wa.gov/_layouts/15/CasesPublicWebsite/GetDocument.aspx?docID=2734&year=2017&docketNumber=170033.

²⁶ F. Michigan Public Service Commission Nichols, Robert, "In the Matter of the Application of) UPPER PENINSULA POWER COMPANY) for Authority to Increase Retail Electric Rates, Case No. U-20176)" (n.d.),14

Estimated Equity Capital Required for the 2014 Purchase of UPPCO

UPPCO Equity (year end 2013)	\$100,956,273	FERC reported
Premium Paid for UPPCO above 2013 Book (2014)	\$51,200,000	Est. from IEG SEC 2014 10K
Total Purchase of Equity (2014)	<u>\$152,156,273</u>	
Net Increase to UPPCO's Debt from Acquisition (2014)	\$38,100,000	2014 FERC cash flows
Cash Available from Financing Activities (2014)	<u>\$(11,807,894)</u>	2014 FERC cash flows
Cash Available from Increase in UPPCO's debt (2014)	\$26,292,106	
Reported UPPHCO Debt above that in UPPCO (2019)	<u>\$91,800,000</u>	Est. from (U-20176)
Total Debt Available for UPPCO Purchase	\$118,092,106	
Estimated Investment Equity Capital Required	<u>\$34,064,167</u>	Total Purchase Less Debt

Based on this estimate, it may be the case that of UPPCO's 2014 reported equity of \$182,565,929 reported to FERC in 2014 that only \$34,064,167 of this represents true investor capital at risk. It is likely that somewhere in the range of \$53 and \$54 million of UPPCO's equity is a result of the ADIT accounting adjustment. This means that the ADIT adjustment allowed for approximately \$26.3 million in additional debt capital reported at the UPPHCO level to be used to purchase UPPCO along with another \$91.8M held at its parent, UPPHCO. From this it is estimated that of the \$182,565,929 equity reported by UPPCO in 2014, likely only \$34.1 million represents investor equity capital (at risk) resulting from the acquisition. Another approximate \$53,285,916 is equity created from the ADIT adjustment accounting (difference in UPPCO and UPPHCO equity) and the balance of approximately \$95,215,846 is likely debt, i.e. represents leveraged equity.²⁷

This highlights the importance of holding company transparency. It is nearly impossible to reconcile all the numbers making from the limited and dispersed information available. Only rough estimates are possible which are subject to error. From 1998 to August of 2014, UPPCO's holding company was required to file consolidated financial information with the Securities and Exchange Commission (SEC), but because UPPCO's new investors are private equity investors, financing activities are opaque to public view. The differences between publicly-held utilities and privately held utilities are not limited to financial reporting requirements. There are differences in motivations of investors as well which are not obvious; therefore, it should be expected that the management of the utilities might be affected by these differences. An analysis of UPPCO's financial performance since separating from IEG in 2014 provides some level of confirmatory insight into how anticipated differences have manifested themselves in various measures since "de-synergizing" the utility from its previous, publicly traded utility holding company and its shared

²⁷ As indicated by MPSC testimony, UPPHCO is holding \$200 million in debt and UPPCO is only \$108.2 million with a difference of only \$91.8 million. But, recall this that UPPCO's original debt was only \$68.9 million which means the leverage employed at the holding company level represents the debt increase from \$68.9 million to \$200 million or an increase of \$131.1 million, part of which (as shown) was needed to pay the premium on the book value of UPPCO in the purchase of the utility. UPPCO's FERC filing does not show a purchase price above book value of assets (i.e. no goodwill reported); therefore, it is assumed that this accounting must have taken place at the UPPHCO (parent) level.

services group. However, an exploration of various managerial and operational efficiency measures of the utility may prove surprising and counterintuitive.

UPPCO's Post-Private Equity Investor Financial Performance

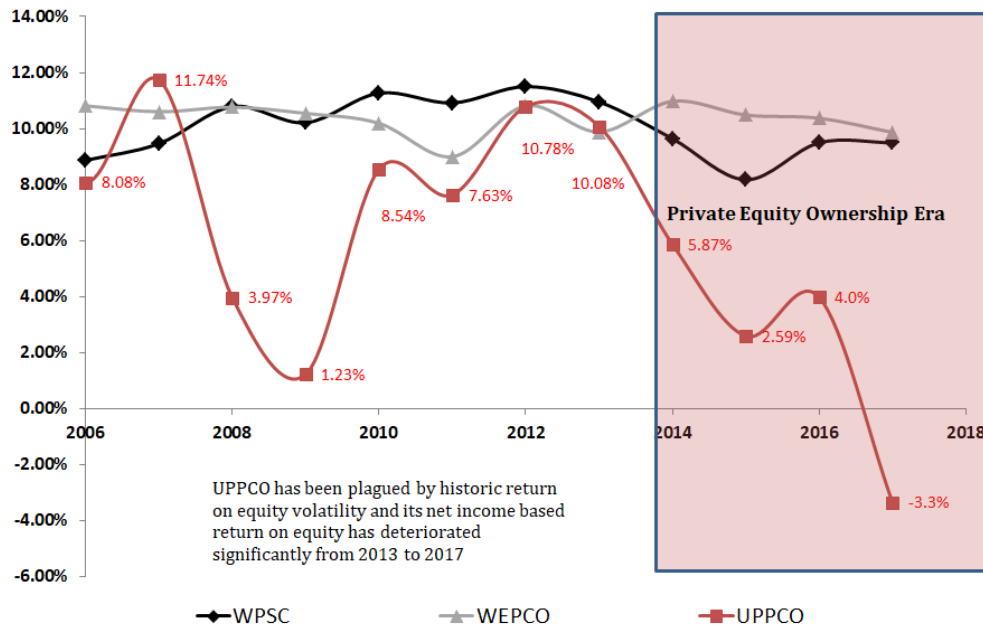
Private Equity versus Publicly Traded Equity and Implied Motivational Influences on UPPCO Management

In its first rate case under private equity ownership UPPCO requested an increase in its revenues of \$6,681,312 annually (a 6.45% increase); or, if deferral of expenses they asked for were not approved, an increase of \$13,155,928 annually (a 12.7% increase). The MPSC authorized \$4,647,975 or 70% of UPPCO's request. The MPSC also granted an authorized return on equity of 10%. The order, dated September 8, 2016, was a tough lesson for UPPCO's new private equity owners (now under Basalt since June of that year) in how U.S. electric regulation can work when the public's best interests are involved, and when the public in question, in this case UPPCO customers, are under duress from higher than average rates (PGRE at work).

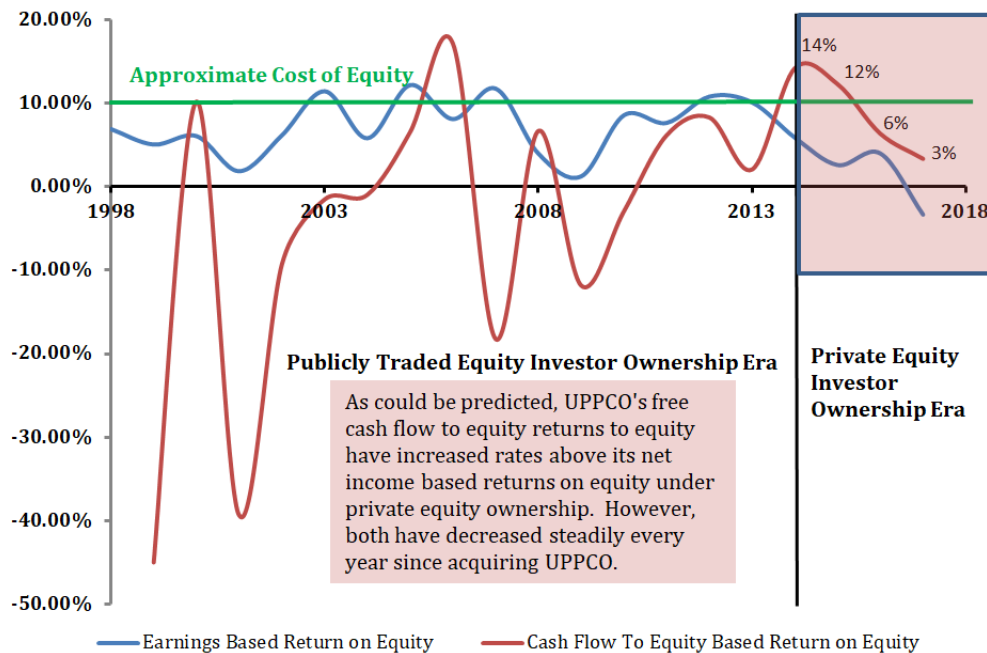
Regardless of what Basalt's specific return on investment expectations were going into the UPPCO acquisition, it is reasonable to assume that as a private equity investor with no stock market to set UPPCO's enterprise value as a multiples of its net income based earnings, Basalt would focus its attention on generating cash flows to equity required to pay out dividends on which investors rely. It follows that it would de-emphasize income based measures of earnings regardless of how regulators view these measures to set and assess allowable returns on equity. This is not remarkable unless the Commission doesn't understand the difference, which could create a divergence in what is reasonable for customers and what is reasonable for UPPCO investors. For example, if net income is low, but equity cash flows are high, an allowable increase in revenues (rate increase) to increase net income to allow utility investors to return higher net income based returns will drive equity cash flows even higher.

This isn't an issue a utility regulator such as the MPSC has experience in dealing with so it is uncertain if the MPSC understands this disparity in public equity investor versus private equity investor motivations. Net income is a readily available number that can be plucked from accounting statements, but free cash flow to equity estimates involve some financing tradecraft to determine. Without available free cash flow to equity, dividends cannot be extracted so it is of interest to see now UPPCO's free cash flow to equity, dividend payments (or capital returned to parent), net income and return on equity-based on net income have changed since UPPCO's acquisition by private equity owners.

UPPCO, WPSC and WEPCO Estimated Net Income-Based ROE (2006 to 2017)



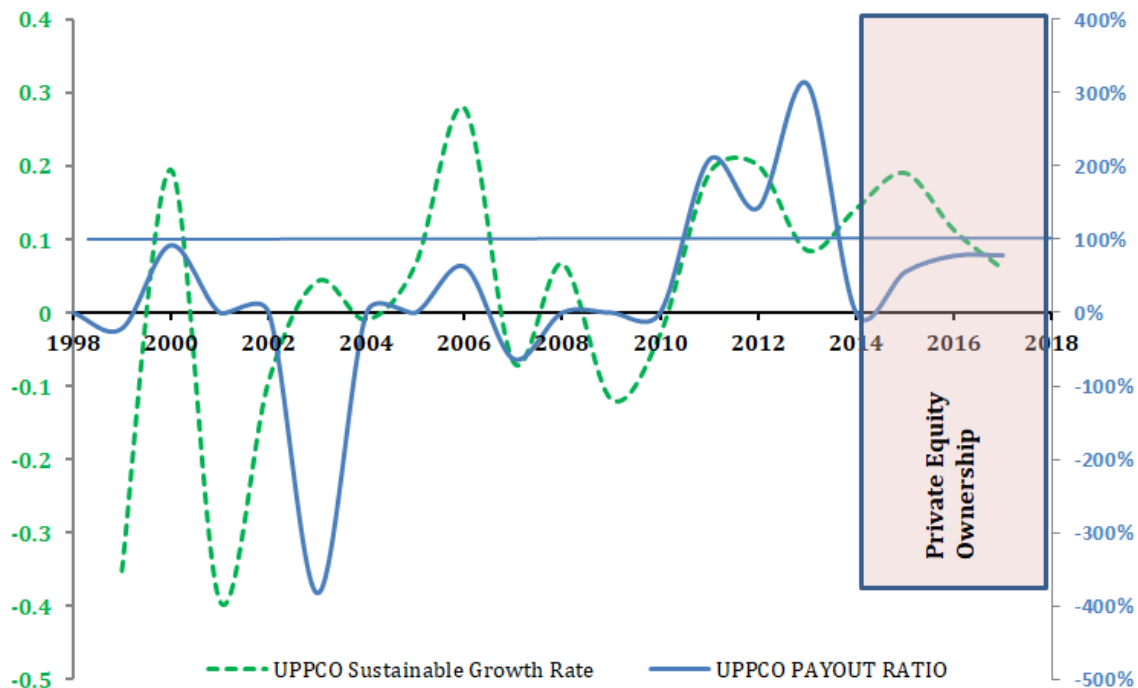
UPPCO Estimated Net Income-Based ROE and Cash Flow to Equity-Based Returns (1998 to 2017)



Maybe not too surprisingly, UPPCO's net income has drifted down under private equity ownership. Also not surprising was the immediate increase in cash flow to equity after ownership change.

However, UPPCO's free cash flow to equity which fuels its dividend payments to its investors has been on a steady decline since IEG's sale of UPPCO to private equity ownership. Also not surprisingly, along with UPPCO's steady decline in free cash flow to equity generated from operations so has its dividend payments to its investors similarly declined. Although obvious why this trend is not a situation to be celebrated by UPPCO's investors neither is it one that should be celebrated by its customers. UPPCO's sustainable growth rate, a measure of how much earnings growth an enterprise can achieve before a need to issue debt or equity, has been historically low. It improved with some consistency from 2010 through 2014, and after BBIP's purchase of UPPCO it had two favorable years but in 2017 settled lower. Most noteworthy is that UPPCO's dividend payouts (as a percent of free cash flow to equity) were at their highest levels just prior to selling UPPCO to BBIP, but payout ratios were well above 100% (unsustainable) at those levels. Since the acquisition UPPCO has paid out dividends at levels below 100%, another confirmatory sign that BBIP seems to have a much greater focus on sustainable cash flow management than did IEG.

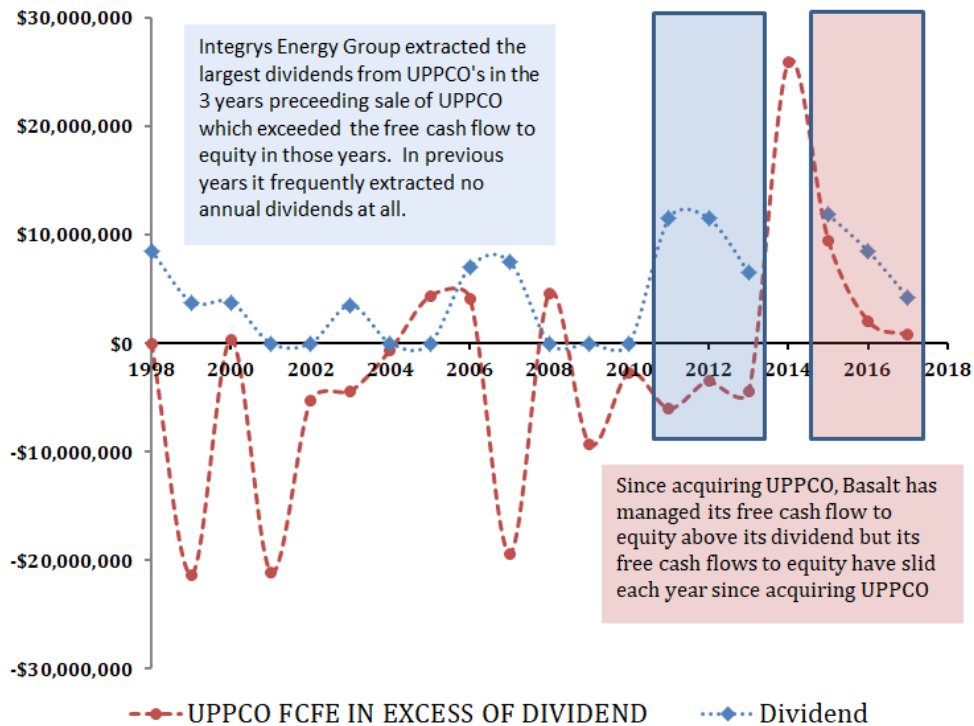
**UPPCO Sustainable Growth Rate and Dividend Payout Ratio
(1998 to 2017)**



This is also clearly illustrated in the spread between UPPCO's free cash flow in excess of its dividend payment. IEG could scarcely manage to keep UPPCO's levels above the zero line. Only in three years from 1998 to 2014 did its free cash flow exceed its dividend payments. It frequently paid no dividend at all, and in many of those same periods where it paid no dividend it negative cash flowed. The numbers rebounded after the BBIP acquisition. Studying the financial performance

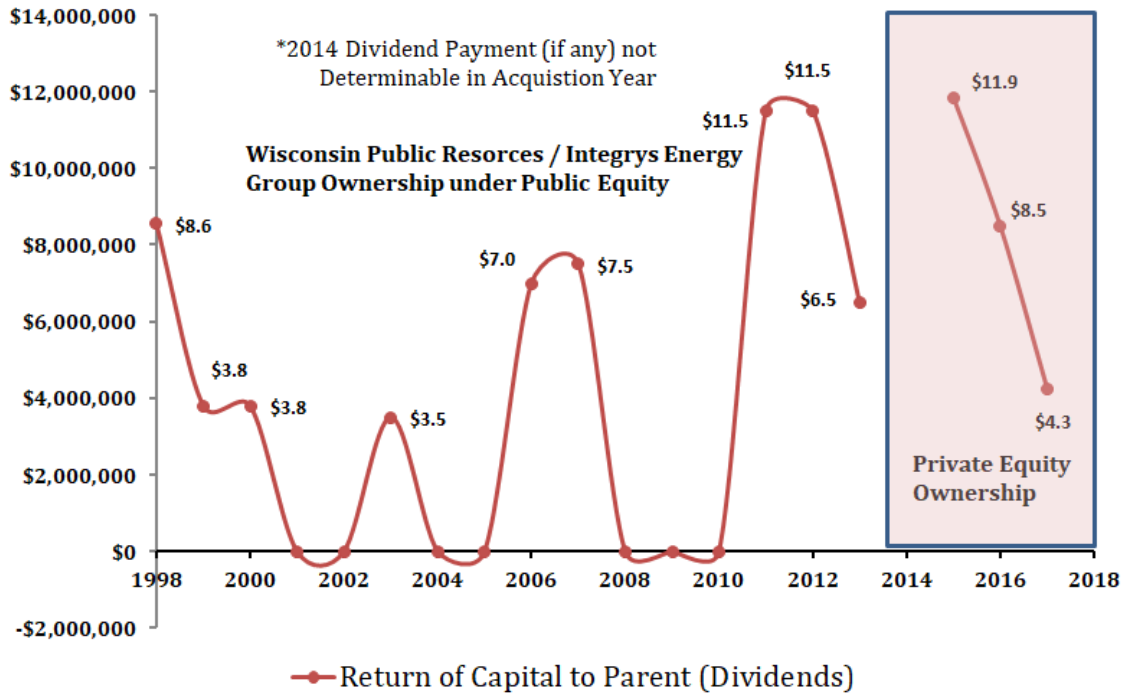
since BBIP purchased UPPCO there was visible optimism represented by the post-acquisition dividend payout level. Since that inaugural post-acquisition period, however, UPPCO's dividend and free cash flow to equity in excess of its dividend (what it can retain for reinvestment) have slid on a straight line downward with its free cash flow above its dividend landing barely above zero in 2017

**UPPCO Free Cash Flow in Excess of Dividend and Dividend Payout
(1998 to 2017)**



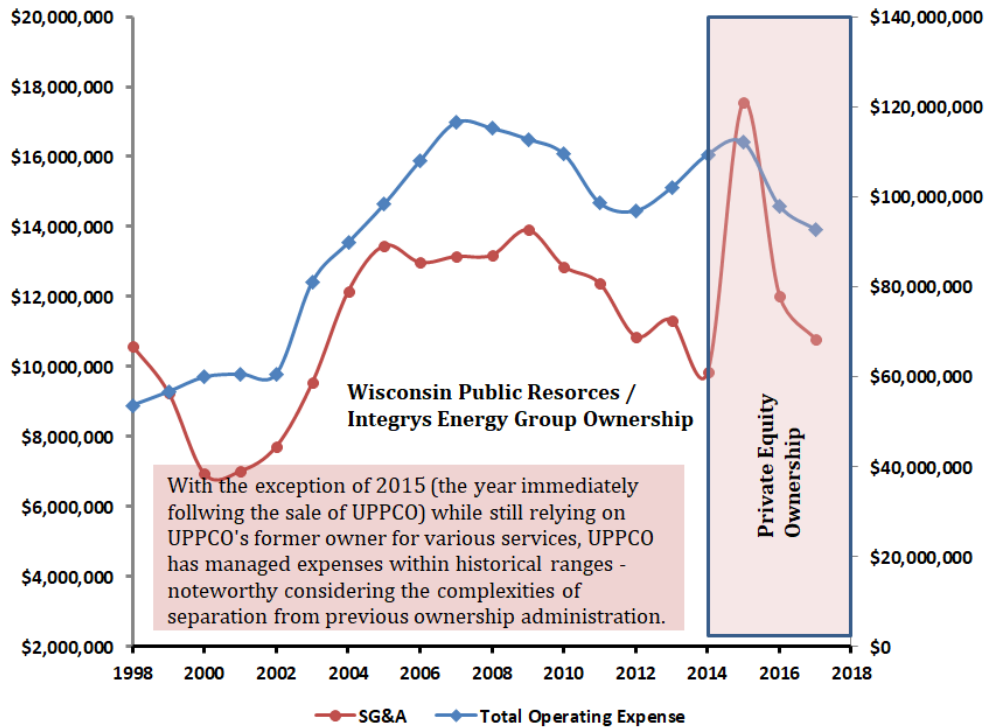
If this were the whole story, it would be easy for frustrated UPPCO rate payers to assume cost controls or managerial efficiency of the operation of the UPPCO have contributed to difficulties in maintaining post-acquisition levels of performance and that new ownership, and its investors are reaping their just rewards. Putting aside UPPCO's highly publicized newly adopted automated meter reading problems and some of its struggles to separate from IEG to stand on its own and instead look at UPPCO's numbers without malice of forethought, the story looks different than one might expect.

UPPCO Return of Capital to Parent (Dividends) (1998 to 2007)



“De-synergizing” UPPCO by separating it from IEG and its shared services group involved significant risk. Operational synergies with WPSC and the ability to share fixed administration costs was one of the major reasons it was palatable for IEG to hold UPPCO even though its returns were often below UPPCO’s cost of capital (resulting in financial losses). Therefore, one could reasonably expect that its separation would create a massive increase in fixed costs, specifically in sales, general and administration expenses (SG&A). This is exactly what happened in 2015, but UPPCO had signed an agreement with its former owner to provide transition services (a “TSA”) for a period not to exceed 30 months (according to the MPSC order approving the sale of UPPCO to BBIP). In 2016, SG&A costs dropped to near pre-acquisition levels and then dropped again in 2017. This is an admirable feat in consideration of UPPCO’s long-standing relationship and reliance on IEG’s shared services group. If BBIP did not cap its exposure to transition services charges in the TSA that exposed it to the excessive SG&A costs in 2015 one might quibble this was an oversight. This is a fair criticism, but on a grand scale and considering how fast UPPCO weened itself from IEG, a laudable reversal occurred in 2016 only to again improve in 2017. This occurred not only in its SG&A costs but in its total operating expense as well which has come down to lower than pre-acquisition levels.

UPPCO Sales, General & Administration Expense (SG&A) and Total Operating Expense (1998 to 2017)



Assuming UPPCO is doing what needs for safe and reliable operation of the utility, the SG&A and operating expense control is good news, but there is also potentially latent bad news as well. The good news is obvious; UPPCO under private equity ownership is managing its SG&A and operating expenses more efficiently as a standalone utility than one might have predicted in advance. The bad news is that continuing to reduce these costs will be extremely challenging. Recall, that in its first rate case under Basalt's ownership in 2016, UPPCO was allowed to increase its revenues by \$4.65 million compared to its request of \$6.68 million. In 2017, UPPCO's utility operating income dropped, not increased, by \$5.07 million. This followed an \$11 million drop from 2015 to 2016. This can happen to utilities owing to lower than expected electric demands, and if variable costs drop as well, this should not have a negative effect on earnings. However, such variations do create earnings volatility, and volatility is just another word for financial risk of return for investors.

Recall that according to financial theory, the higher the risk a utility investor faces, the more reward justified for that investment. In a utility's case this reward should be reflected in the allowable return on equity. That's the theory. It differs from reality when a utility's customers are under duress from high rates (PGRE influence). The reality is that UPPCO is granted nothing more in allowable returns than larger Advantaged Utilities with much lower earnings volatility. To put a very fine point on this: if there is not much more UPPCO can do to reduce its operational costs it must seek additional rate increases to fund capital investments that both the utility and its investors require. If it cannot secure those rate increases it clearly illustrates that PGRE supersedes the sanctity of the regulatory pact as it relates to investors' rights when asymmetric market

efficiencies are bearing down on a Disadvantaged Utility. Without an ability to raise its rates, the returns generated for UPPCO for investors – not allowable returns but *actual returns* - given the financial risk profile compared to other regulated utilities (and possibly even the market portfolio of the S&P 500 at some point) become unreasonable - maybe not to customers, maybe not to the MPSC upholding its charge to look out for UPPCO customers' interests, but to UPPCO investors.

Data suggests that volatility of UPPCO earnings isn't high because of poor management of revenues and expenses; rather, uncertainty is high because of very low net income margins. This is a consequence of UPPCO's inherently higher operational costs in conjunction with revenues that are being held in check by the MPSC in the interests of UPPCO's customers. From 2006 to 2016 UPPCO has shown to have equal or lower volatilities in year-to-year income, SG&A and maintenance expense than both WEPCO and WPSC. Simply put, since 2006 (as far back as analyzed), UPPCO has managed operations and maintenance expenses in a tighter range year-to-year than the two larger utilities. UPPCO's average operating margin from 1996 through 2014 was 8.2%. Since IEG sold the utility to private equity ownership, it improved to an average of 11.5% from 2015 through 2017, and this should help tame volatility if these margins can be maintained.

**Investor Owned Utility Income Statement
and Return on Equity Average Volatility Comparisons
(2006 to 2017)**

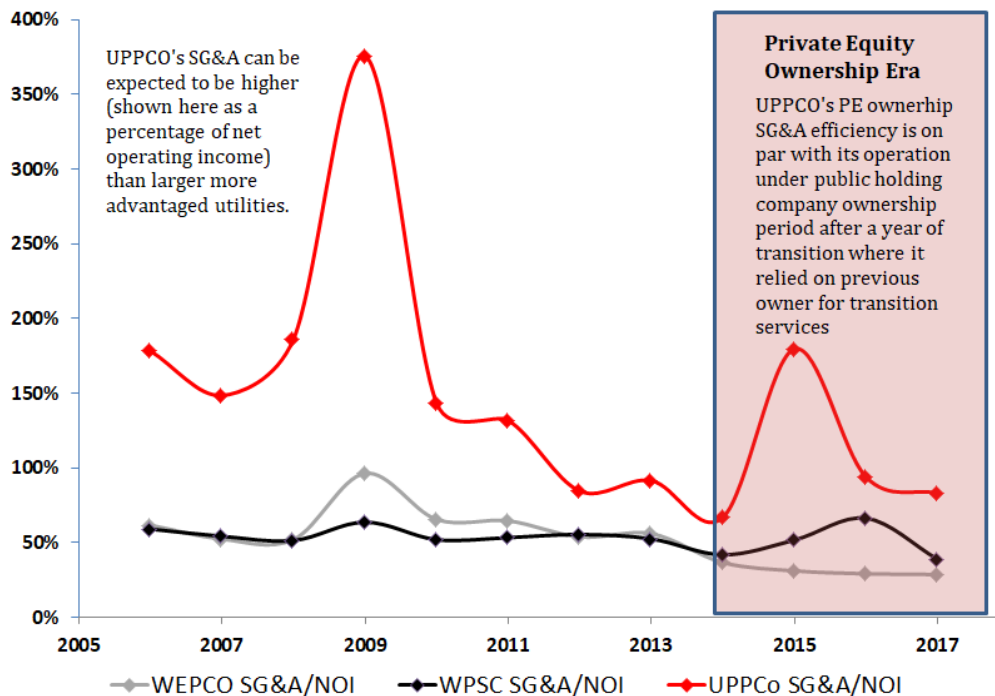
	WEPCO	WPSC	UPPCO
UTILITY OPERATING INCOME	9%	9%	6%
Operation Expense	10%	22%	9%
SG&A	9%	14%	8%
Total Operation & SG&A Expenses	9%	21%	9%
Maintenance Expenses	16%	18%	11%
Depreciation Expense	5%	38%	5%
TOTAL Utility Operating Expense	9%	9%	6%
Net Utility Operating Income	8%	31%	40%
Operating Margin	6%	30%	37%
Net Income	10%	6%	93%
Total Equity	4%	4%	11%
Return on Equity	8.43%	5.83%	92.86%

By comparison, WPSC's average over these same last three years was 11.8%. WEPCO's was an identical 11.8%. If UPPCO's management under private equity ownership is exceeding the past performance of its previous ownerships' administration when it operated UPPCO, and equaling the

efficiency of that same administration operating another, more Advantaged Utility today (in this case WPSC), it is possible to back into a measure that generally exposes UPPCO's inherent disadvantages owing to its limited ability to economically scale SG&A costs and operate and maintain with equal efficiency owing, in large part, to its low customer density.²⁸

This can be done by normalizing the SG&A costs as a function of net operating income since operating margins are nearly identical for the last three years of reported data. In doing so, the 2015 spike in SG&A owing to the transition year is blatantly evident, but more generally, the efficiency difference owing to scalability advantages of the larger utilities compared to UPPCO appears to be a difference of about 50%. Notice near identical measures for WPSC and WEPCO despite the fact that WEPCO is approximately three times WPSC's size. This is because these two utilities have reached scales (or densities) that maximize operational efficiency. Once beyond a certain scale the advantages likely begin to diminish or some may argue even reverse. Note that WEC (WEPCO's parent) announced the acquisition of IEG (WPSC's parent) in June 2014. The acquisition closed in June of 2015, and in October of 2015 WEC terminated employment of an undisclosed number of WPSC employees as a result of the acquisition.

**UPPCO, WEPCO and WPSC
SG&A-to-Net Operating Income Efficiency
(2006 to 2017)**



²⁸ This is possible because WPSC and UPPCO were operated with the same executive oversight at the holding company level and with the same shared services employees and resources prior to its sale to BBIP. If UPPCO is achieving similar levels of efficiency as a standalone utility now owned by private equity, the post-BBIP acquisition differences in efficiency between UPPCO and WPSC (now that SG&A costs have stabilized at UPPCO) should provide some rough insight into the true effects of UPPCO's inherent scalability and regional disadvantages.

WEPCO and WPSC SG&A-to-net income and return on equity began a reversal during this period (WPSC started to under-perform compared to WEPCO where prior to this period it had either equaled or exceeded WEPCO's performance by both measures). This is but one of many examples where M&A may not always result in increased efficiencies at the subsidiary level. This can result from any number of factors not the least of which are cultural and labor related (e.g. the resultant labor mix may actually be inferior) and potential diminishing returns based on post-organizational size. WPSC's retail rates were also considerably lower than WEPCO's before the acquisition as well; therefore, being acquired by WEC increased, rather than decreased, the risk to WPSC customers resulting from potential future rate hikes to equalize its rates with those of WEPCO's customers²⁹. There clearly appears to be a level at which size provides scalability advantages and synergies evidenced by the SG&A-to-net income spread between UPPCO and the larger utilities, WPSC and WEPCO, but there also seems to be a point where size doesn't provide nearly as great an advantage and may have no effect or actually diminish efficiency (evidenced by the WPSC's pre and post-WEC acquisition performance).

For illustration purposes SG&A-to-net income is but one such measure to compare a Disadvantaged Utility to an Advantaged Utility, but scalability efficiency deviations between larger, more Advantaged Utilities and UPPCO play out everywhere. They are possibly most evident, and most difficult to improve, in the operation and maintenance of the electric distribution system where low customer densities (customers per mile of distribution line) have a tremendous impact.

2016 UPPCO, Wisconsin Public Service and Wisconsin Electric Corp. Electric Distribution Operations and Maintenance Costs per Customer

Utility	Estimated Cost per Customer
Upper Peninsula Power Company	\$328.96
Wisconsin Public Service Corporation	\$121.47
Wisconsin Electric Corporation	\$112.65

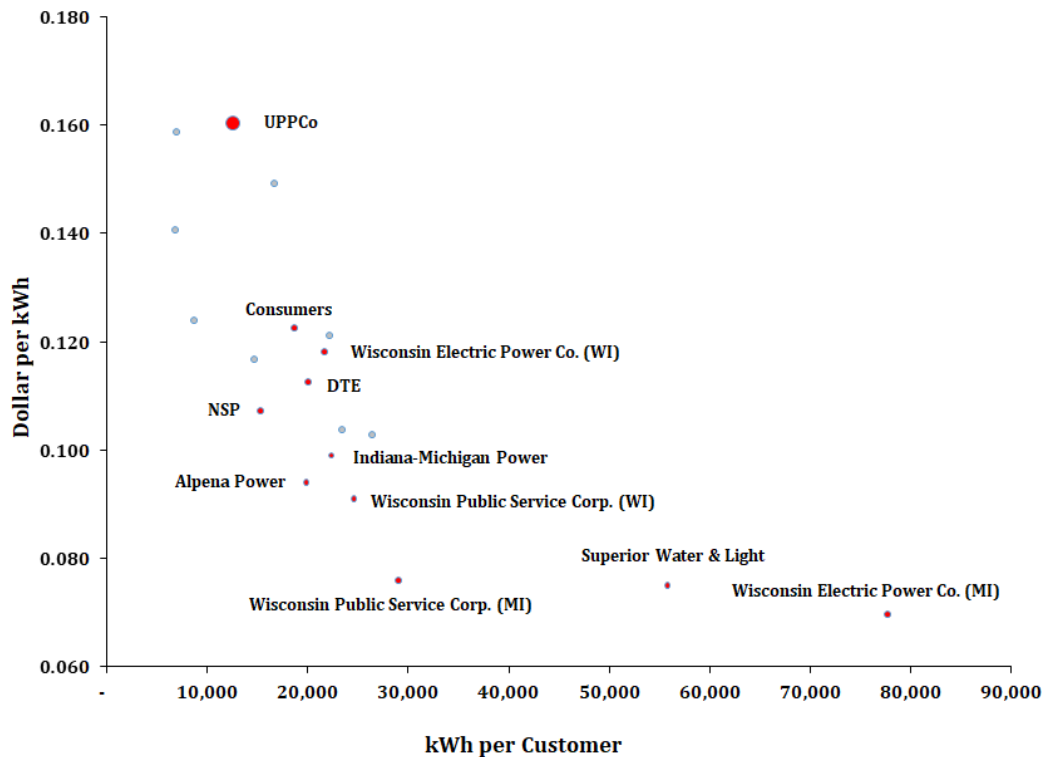
Electric distribution operation and maintenance cost inefficiencies are difficult to combat because it is impossible for a utility to create more customers and sprinkle them conveniently along their distribution systems. Density matters for an electric utility, and density is not the same as size. If a utility has many customers but the number of customers per distribution line-mile is also low or if it has many customers but sells a fewer number of kilowatt-hours (kWhs) to each customer, it is more expensive to serve them. UPPCO falls into both these categories. All manner and number of high paid consultants, as well as utility executives and investors (publicly-traded and private equity alike) fail to grasp this concept and instead consistently conflate size with density and exploitable synergies with inherent electric market inefficiencies that cannot be mitigated. Making such an error and establishing a purchase price for an enterprise is more often

²⁹ It is worth noting that while WPSC's retail electric rates were considerably lower than WEPCO's, its historical return on equity were higher than WEPCO's prior to the acquisition; therefore, its lower retail electric rates were not at the expense of its equity investors.

than not an unrecoverable error. This can be a contributing cause of post-M&A financial performance failing to meet pre-M&A forecasted expectations.³⁰

Some utility operational characteristics masquerade as “obvious” potential synergy opportunities that are better described as acute and incurable inherited deficiencies that consolidation cannot fix and where a divestiture of a utility’s assets (even if just in part, e.g. parts of the electric distribution system) only transfers the infection to the acquirer of the assets (who also probably doesn’t understand the difference between size and density). By way of density illustration, note that WEPCO’s Michigan rates for 26,658 customers are lower than WEPCO’s Wisconsin rates even though they serve 1.1 million customers in Wisconsin. The reason is density. WEPCO reported only 7 industrial customers in Michigan, but they accounted for \$1.9 million megawatt-hours of sales (about 86% of sales).

**2016 Michigan and Wisconsin Investor Owned Electric Utilities
(Average Utility Revenues Dollars per kWh vs. kWh Sold per Customer)**



UPPCO’s need to invest capital in its rate base and generate free cash flows to equity coupled with its inherent territorial and demographic challenges resulting in severe PGRE provide a very narrow window in which it can operate sustainably for the benefits of both its customers and investors. Customers need safe, reliable power at rates they can afford, and while its investors deserve a reasonable return on their investment they must keep investing in the utility to achieve it. Unless

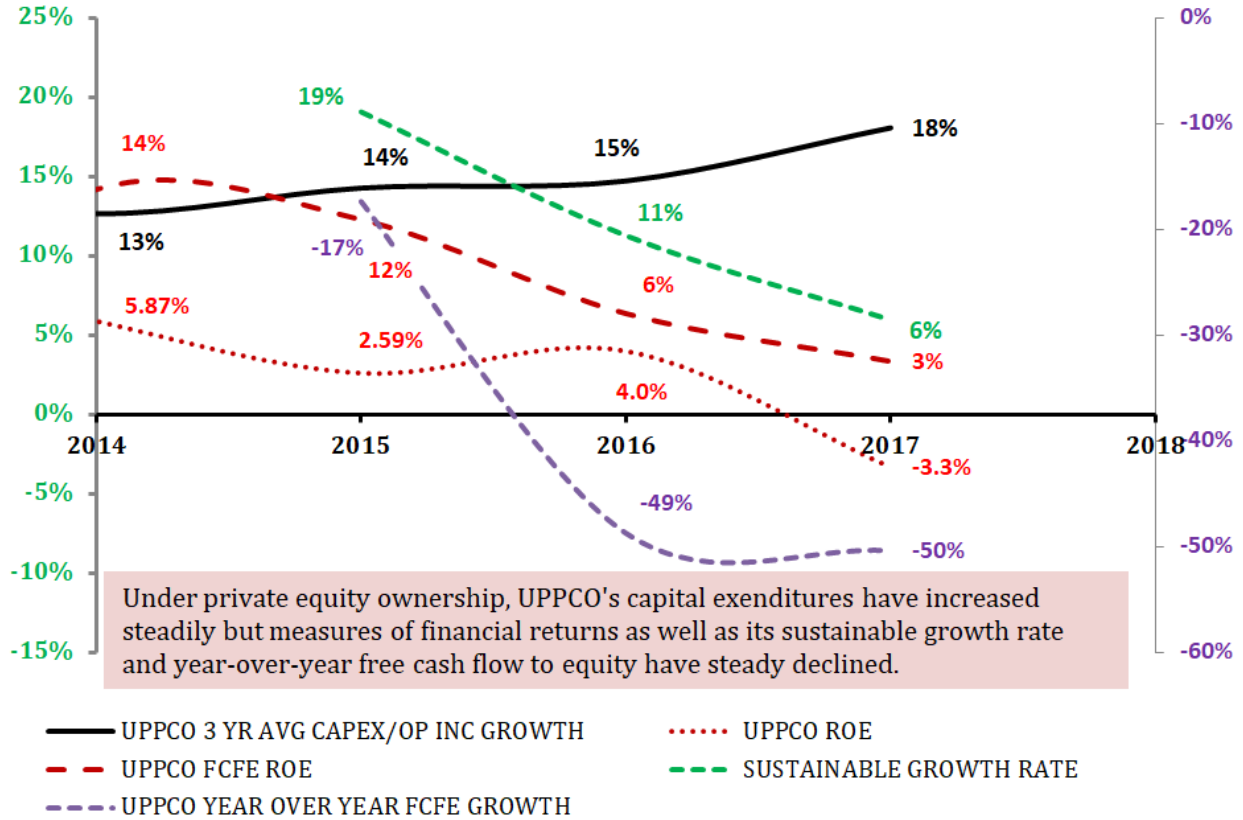
³⁰ Robert D. Benninghoff, “An A Priori Explanation of Electric Market Efficiency Theory in Electric Market Growth and M&A Strategy,” n.d., <https://incidentenergyllc.com/publications>.

investments are lowering operational costs in an amount at least equal to financing those investments, the returns on the capital owed UPPCO debt and equity investors will result in higher rates. This is true of any utility, but UPPCO is particularly vulnerable because of its already high electric rates. UPPCO's average capital expenditures from 1998 through 2014 (the year of the BBIP acquisition) averaged 13% of its operating income, but they have since climbed.

In the 3 years under private equity ownership (from 2015 through 2017) capital expenditures have been 18% of operating income in each of those 3 years. Capital expenditures can vary greatly so it is appropriate to "smooth" the averages. Using a 3 year average, the highest 3 year average from 1998 through 2014 was 17%. In 2010 capital expenditures equaled 23% of UPPCO's operating income. Removing that outlier, the average over the period was 12% with a maximum 3 year average of 15% (occurring back in 2001/2002). Under private equity ownership, the capital expenditures have increased year over year each year and are on the higher side of historical averages as a percentage of operating income. While UPPCO's capital expenditures have increased slightly both its returns on equity and its sustainable growth rate (rate at which UPPCO can increase its earnings without a need to issue additional debt or raise additional equity) have decreased slightly. An investor does not wish to inject additional capital into an enterprise that is not earning its risk adjusted cost of capital, which – in a perfect regulatory universe - should align with a regulator's definition of "reasonable".

The definition of reasonable to an investor is a return commensurate with the return they can achieve elsewhere at equal or lower risk. If there is an opportunity to make a higher return at a *lower* risk, it becomes unreasonable to expect investors to continue investing money into the utility that is riskier than other investments offering higher returns at lower risks. It is truly impossible using FERC data alone to determine what UPPCO's precise return on equity is (as measured by both investors and the MPSC) and then equate that to a reasonableness standard on behalf of UPPCO's investors. However, it is undeniable that by using identical sources of data for comparison that UPPCO is not achieving the return on equity of the larger, more Advantaged regional utilities, and it is falling short of this benchmark while operating at a much higher volatility on earnings (risk) that evidence suggests is not driven by unreasonable costs for the utility's size and market.

**UPPCO 3-Year Average Capital Expenditure/Operational Income,
Free Cash Flow to Equity (FCFE), Income-Based Return on Equity, FCFE-Based Return on
Equity and Sustainable Growth Rate
(2014-2017)**



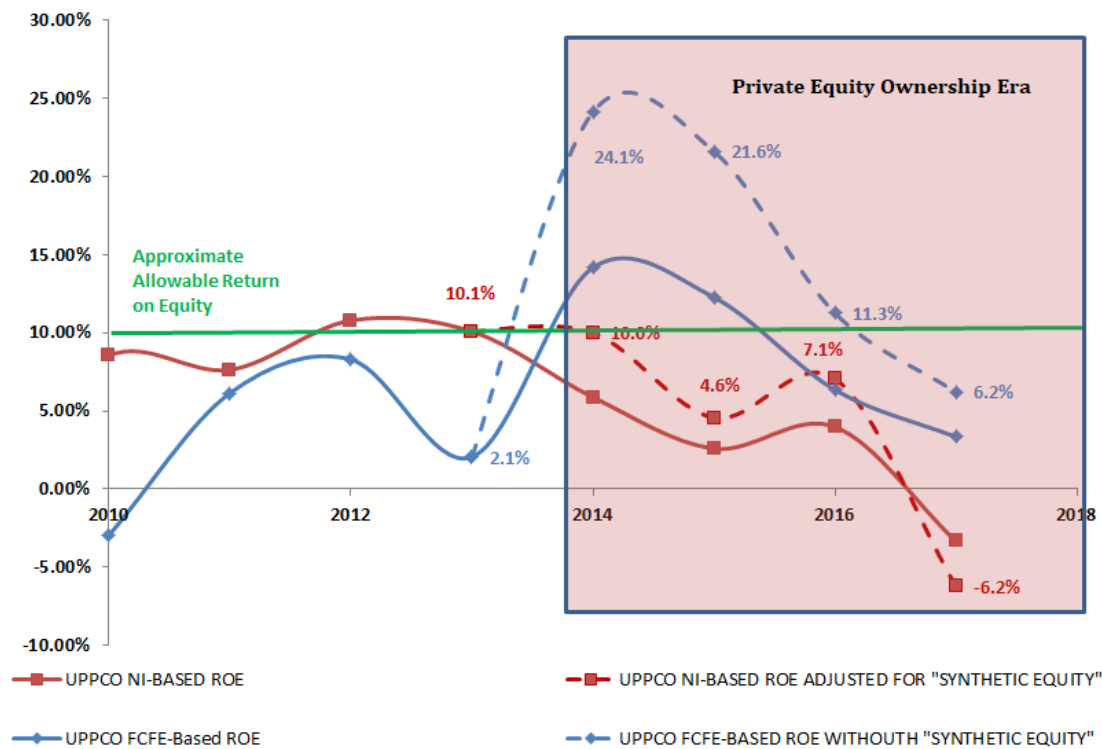
UPPCO as an Investor-Owned Electric Utility Moving Forward

Under private equity ownership since 2014 UPPCO is returning less on its net income-based return on equity compared to its return on equity on a free cash flow to equity basis. In fact, its net income-based return compared to pre-BBIP acquisition levels may appear alarming. However, if the ADIT-generated synthetic equity is removed from UPPCO's equity, data indicates that on a free cash flow to equity basis UPPCO exceeded its MSPC allowable return on equity in both 2015 and 2016 and dipped to 6.2% in 2017 compared to a net income basis that indicates UPPCO earned a negative return on equity in 2017. This clearly indicates the potential magnitude of divergence between the two measures. Data supports what principals of financial strategy would predict: motivation of private equity management differs from publicly traded holding company management because primary enterprise valuation methodologies differ predicated on the nature of earnings measurement. Under private equity ownership, it should be anticipated that UPPCO will continue to manage toward optimizing its free cash flow to equity-based returns.

To the extent that UPPCO's regulator, MPSC, does not regulate the utility based on the same measures UPPCO management seeks to optimize, one might expect future divergences in what

MPSC views as reasonable returns in managing UPPCO retail electric rates (if it is using net income-based measures as a gauge) versus how UPPCO management is optimizing around free cash flow to equity. ADIT-created synthetic equity may also be resulting in an under-estimation of UPPCO's returns on equity by regulator measures, and this may continue to provide some short-term benefits to UPPCO investors. However, gone unchecked, it can be expected that eventually PGRE will prevail resulting from rate increases, and the MPSC will move to impose an "informal" cap on rates at some level based on customer rate pressure if free cash flow to equity rises too high (regardless of what net income-based measures indicate). It is impossible to predict what precise free cash flow to equity-based return on equity will trigger such a cap point (it is possible that point is already here or is very near), or at what specific rate UPPCO management sets as its investors' minimum risk versus reward level in viewing UPPCO as a fertile use of its investment capital.

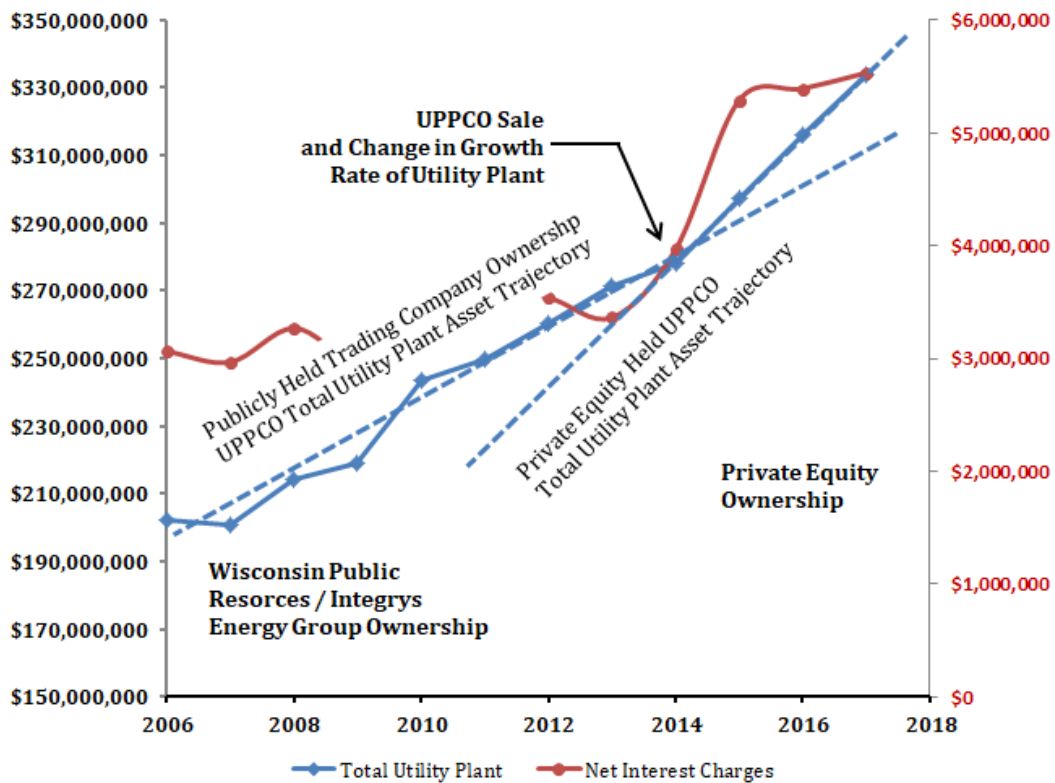
**UPPCO Net Income and Free Cash Flow to Equity-Based Return on Equity
(with and without ADIT-Created "Synthetic" Equity)
(2010-2017)**



Capital Investments, Returns and Rate Pressures

If there is a triggering point at which the MPSC would take aggressive action to permanently tamp down rates it most certainly will closely follow any future significant capital investment plan that cannot sufficiently offset rate impacts to tame PGRE. UPPCO is already currently investing in property plant and equipment at a rate that appears to exceed its pre-private equity ownership rate, and capital expenditures inevitably stack up and contribute to rate pressure.³¹ Adding to this pressure could be the fact that the BBIP acquisition resulted in additional annual debt service to fund the ADIT-election decision. This again calls into question the decision to pursue the ADIT election for tax purposes because it works against the obvious plans BBIP had for future capital investments as evidence by its June 2014 press release (unless the elimination of the deferred taxes more than offset the debt service costs).

**UPPCO Capital Expenditures and Annual Debt Service Payment
(2006-2017)**



UPPCO's infrastructure is aging, which while complimentary to utility investors' desire to deploy capital to generate returns as regulatory assets depreciate, so is it too almost inevitable UPPCO will be inched towards a "larger" capital investment plan at some point. If UPPCO does move to deploy

³¹ This does not mean that the capital investments are not prudent or required only that there is an inevitable impact to electric rates.

significant equity capital it will reinforce the supposition UPPCO's *effective* returns on equity (based on free cash flow to equity with synthetic equity adjustment) are at least equal to its cost of capital and are potentially higher than what the MPSC is currently calculating. If actual returns are below allowable (which should approximate UPPCO's cost of capital) UPPCO would not wish to deploy capital unless absolutely forced to do so because doing so destroys investor wealth.

UPPCO's Potential Exposure from Leverage, Premium Paid over Book and Mounting PGRE on Multiple Fronts

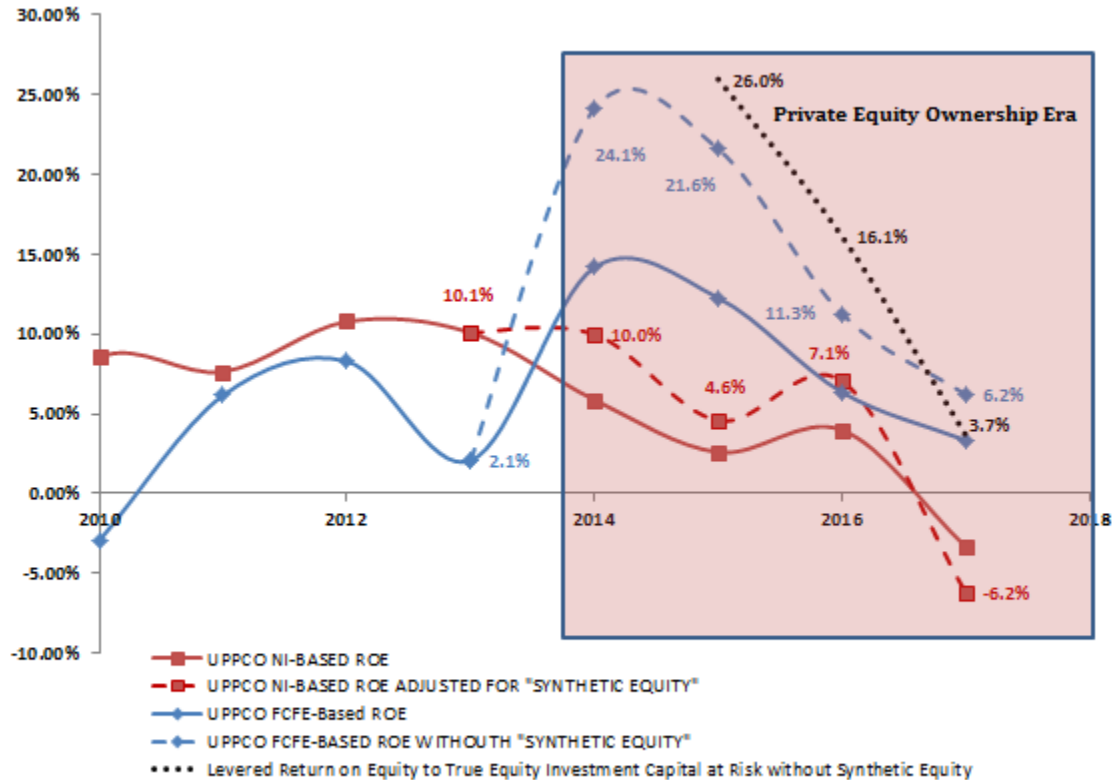
Annual dividend payments, which are dependent upon free cash flow to equity, are critical to all investors but for reasons previously explored they are particularly critical to private equity investors. UPPCO's current owners paid a substantial price for UPPCO over its book value and appeared to finance this purchase with a substantial amount of debt. If UPPCO's cash flows to equity cannot cover its debt service requirements on both the utility's balance sheet and that of its parent (assuming no other subsidiaries to contribute cash flow), a potentially dangerous financial result can emerge. First, if an enterprise begins to show signs of financial strain, such as an ability to cover its debt service with some margin of safety, it can violate debt covenants. Often when this occurs, it often fails to generate sufficient cash flows to meet equity investor expected returns. The worst case is default on the debt, where an enterprise fails to generate sufficient cash flow to the firm to pay its debt. How close might UPPCO's investors be to this point can only be estimated at very rough levels. To this point, all analysis has assumed no leverage, i.e. free cash flows to equity were going straight to equity reported by UPPCO to FERC on its balance sheet with and without estimated ADIT-generated synthetic equity included when calculating returns on equity.

Using information developed to this point a rough estimate can be constructed to approximate returns that are being generated based on estimated true equity capital investment by UPPCO's investors paid at the holding company (UPPHCO) level in consideration of the effects of the estimated levels of leverage previously calculated. In this analysis UPPCO's capital returned to parent (or dividends) must be reduced by the amount of estimated debt service on the additional debt held by UPPHCO that financed the purchase of UPPCO above its book value and which levers UPPCO's equity. That amount leftover after debt servicing, net of tax deduction benefits at the holding company level, is then available to pay the returns to what is estimated to be the actual equity investment capital at risk for investors of approximately \$34,064,167.

Estimated Return on Equity to True Equity Investment Capital at Risk

	2015	2016	2017
Dividend Paid by UPPCO to Parent	\$11,850,000	\$8,495,000	\$4,250,000
Debt Service on \$91.8 million Parent Debt at 4.36%	\$(4,002,480)	\$(4,002,480)	\$(4,002,480)
Tax Benefit of Debt at HC Level (@25% Eff. Tax Rate)	\$1,000,620	\$1,000,620	\$1,000,620
Adjusted Dividend	\$8,848,140	\$5,493,140	\$1,248,140
Equity Investment Capital at Risk	\$34,064,167	\$34,064,167	\$34,064,167
Estimate Return on Equity	26.0%	16.1%	3.7%

**Estimated Return on UPPCO (True) Investor Equity Capital At Risk
Accounting for Holding Company Leverage
(2015 to 2017)**



Leverage, while originally offering a couple percentage point boost to UPPCO equity investor returns starting working in reverse in 2017 as UPPCO's free cash flows to equity has slid (reference black dotted line). If this estimate is fairly accurate (if not precise) it would suggest that in 2017 UPPCO's free cash flow was scarcely covering debt service obligations at the holding company level. Although this analysis may not be precise, strong anecdotal evidence suggests that UPPHCO's financial condition has deteriorated. MPSC testified in February of 2019 that UPPHCO's debt has been downgraded to Ba1 by Moody's Investors Service. Why UPPHCO's debt was downgraded was not disclosed, but it would not be surprising if those reasons align to the overall general cautions raised by this analysis if not the precise calculations to support the general concerns. Ba1 is the first tier of non-investment grade debt ratings in the Ba category which Moody's characterizes as the rating category where "obligations are judged to have speculative elements and are subject to substantial credit risk".³² UPPCO's credit is not rated, and the Commission staff testified that "many

³² "Moody's Rating Scale and Definitions," *Moody's Investor Service*, accessed March 11, 2019, https://www.moodys.com/sites/products/ProductAttachments/AP075378_1_1408_KI.pdf.

regulated utilities in Michigan have credit ratings of one to four notches higher than their parent company.”³³

One potential problem with this argument - if it was meant to provide assurance of UPPCO’s stability - is that first, no other Michigan utility holding companies have debt ratings below investment grade according to Exhibit S10.6 provided by the Commission. In fact, the lowest rating level of any utility holding company on the list provided is 3 tiers higher than UPPHCO debt. At the utility level, there are no Moody’s ratings below A2 for other utilities listed on the exhibit, and DTE is the only utility with a 4 notch difference between it and its holding company. This means that if UPPCO’s debt was rated (at the utility level) 1 to 3 tiers higher than its holding company then, with the exception of DTE, UPPCO would be rated no higher than the lowest Moody’s rated Michigan utility holding company according to the Commission’s exhibit. This aside, there should be a greater cause for concern for any financial analyst that has actually compared the cash flows to equity of UPPCO versus the larger and higher rated electric utilities on the Commission’s exhibit because the divergences will likely be significant. As is the case in so many other areas, UPPCO simply doesn’t compare favorably to larger more Advantaged Utilities.³⁴

Relying on debt rating comparisons alone could, without more thorough analysis of the utility’s condition, give a false sense of security.³⁵ Additionally, there is no discussion in testimony addressing the magnitude of UPPCO’s levered equity relative to other utilities that appear on Exhibit S10.6; therefore, there is even more reason to question the validity of the correlation of UPPCO’s wherewithal to withstand future financial instability relevant to the much larger Advantage Utilities listed. Part of this problem is the amount of UPPHCO debt that is leveraging UPPCO’s equity in combination with the amount of debt that financed the premium above book that was paid to acquire UPPCO. Part of this leveraging was made possible by the ADIT transaction MPSC approved ex-poste, but the larger portion is debt at the holding company level. A practical effect of this leverage can be illustrated by comparing BBIP’s purchase of UPPCO and Basalt’s current trajectory of payback of its equity compared to the path that IEG followed over its 17 year ownership.

IEG’s cumulative, temporal based return on equity path from its purchase of UPPCO through its sale to BBIP based on its historical dividend payments to investors can be compared to various Basalt scenarios for its current trajectory.³⁶ Scenarios include assuming both a \$298.8 million dollar

³³ Nichols, Robert, “In the Matter of the Application of) UPPER PENINSULA POWER COMPANY) for Authority to Increase Retail Electric Rates, Case No. U-20176).”,15

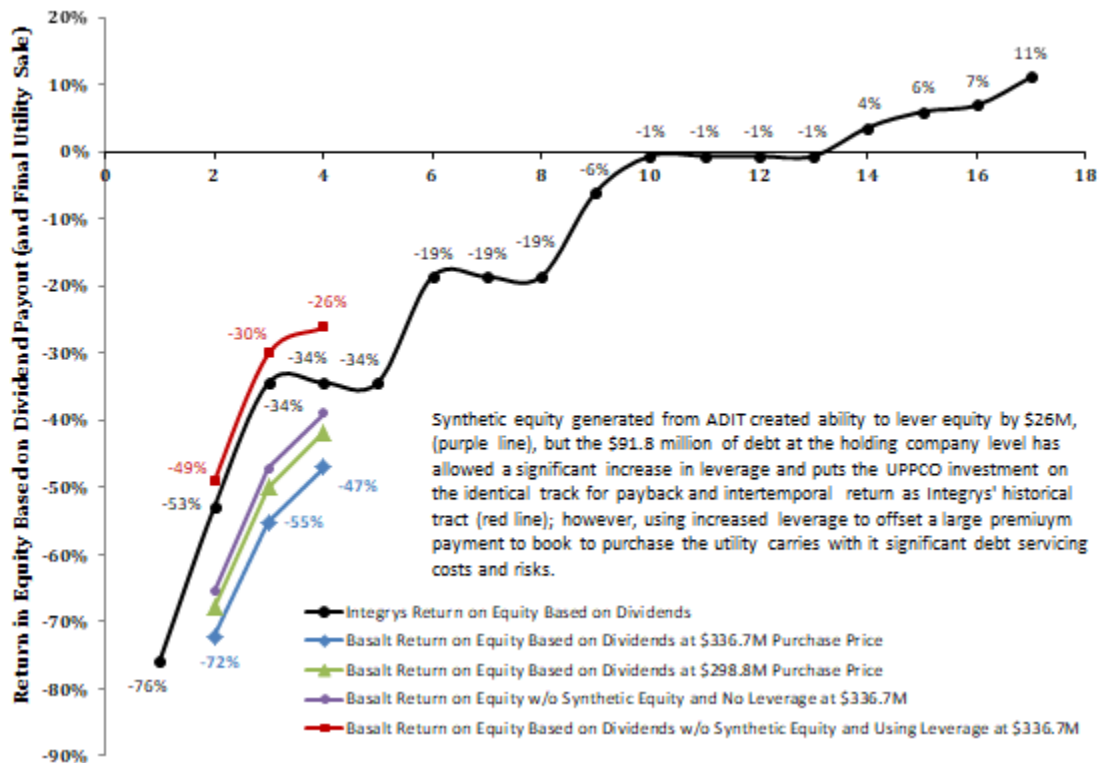
³⁴ There is portion MPSC staff testimony in which it documents UPPCO’s reply to the rather curious MPSC question, “is it reasonable to fund all expenditures with 100% equity forever?” If nothing else, this question simply illustrates the MPSC’s unfamiliarity with the utilities actual equity cash flows. Nonetheless, UPPCO replied that it “does not propose UPPCO will fund all future capital expenditures beyond 2019 with 100% equity”. The utility was only proposing to push down equity in 2019. It also responded that, “UPPCO is currently in the process of evaluating its 2019 financing plan in light of the recent UPPHCO credit downgrade and financing implications.” It appears from this exchange that the MPSC is unsure of how the utility is going to finance its future operation and that the utility currently doesn’t appear to have a long-term financing plan to offer the MPSC for review (ref. Nichols 2019, U-20276, exhibit S-10.4).

³⁵ Free cash flow to equity comparison has been performed by the author for UPPCO versus WPSC and WEPCO which both appear on Exhibit S10.6, and the differences are material both in magnitude (adjusting for the substantial differences in capitalization and utility size) and volatility.

³⁶ Includes the final period after-tax gain on the sale of UPPCO and assumes that the utility was purchased at its FERC reported book value in 1998 with no financial leveraging of the equity.

purchase price as originally announced and the \$336.7 million price actually reported to SEC by IEG. Dividends are assumed to be the return to investors for all scenarios, and the scenarios depict what the payback paths would look like at the two purchase prices with and without synthetic equity affecting returns, assuming no leverage versus the payback path for the actual sale at \$336.7 million, levered at the holding company level and assuming the returns on equity to true investor equity capital at risk (i.e. \$34 million).

**Integrus Energy Group Intertemporal and Lifecycle UPPCO Investment Returns
Compared to Basalt's to Date
(Annually from Time of Acquisition)**



Even though IEG sold UPPCO well above its book value, the sale only increased its return on its original investment by 3% owing to the fact that the sale occurred so far in the future from purchase (consistent with the time value money). Noteworthy is that Basalt's payback path on the actual purchase of UPPCO, heavily leveraging the purchase and exploiting the ADIT accounting, is almost identical to IEG's first three periods after the sale. The question is can Basalt hold it over a long-term period considering it must earn returns at or above its cost of capital annually. The intertemporal spread in returns in the IEG path from the Basalt path of the non-levered scenarios results from the difference in magnitude of purchase prices relative to dividend payments and higher levels of equity dilution. Significant leverage was required to close the IEG path gap. However, the IEG path is not necessarily one that Basalt likely wants to – or even possibly can – follow, and these parallel paths do not mean that the financial security that IEG provided and what UPPCO currently provides are comparable.

Immediately after BBIP acquired UPPCO, the utility began paying out higher dividends than IEG did in previous years, likely because BBIP's purchase price of UPPCO occurred at such a substantial premium to its book and correlated to its need to pay debt service at the holding company level. Therefore, in a long-term hold strategy, UPPCO will be forced to pay out higher annual dividends as compared to history to achieve its private equity investor expectations because so much debt service must be paid (off UPPCO's balance sheet) that resides at the holding company level. This has the effect of exposing UPPCO's owners to considerable and elevated PGRE risk relative to that which IEG faced with UPPCO. Assuming IEG was not leveraging UPPCO or even possibly that cash flows from one of its various other subsidiaries was paying any off balance sheet debt that was, IEG frequently granted UPPCO customers dividend holidays. This is not possible with Basalt's ownership given its estimated associated leverage at the holding company level. It would appear that Basalt must extract capital from UPPCO generated by its cash flow from operations to pay debt at the UPPHCO level. That minimum extraction would appear to be not to much lower than the 2017 dividend payout level which covers debt (at an estimated 4.36% interest rate) with about \$1.3 million left over for its equity investors. Estimated consolidated UPPHCO debt service coverage ratios are as follows:

Estimated UPPHCO Debt Service Coverage Ratios

	2015	2016	2017
Debt Service at UPPCO (Affiliate) level at 4.36%	\$5,290,905	\$5,392,034	\$5,532,838
Debt Service on \$91.8 million Parent Debt at 4.36%	\$4,002,480	\$4,002,480	\$4,002,480
Total Debt	\$9,293,385	\$9,394,514	\$9,535,318
Net Utility Operating Income	\$9,764,367	\$12,832,136	\$12,989,636
Debt Service Coverage Ratio	1.05	1.37	1.36

What is more, it will be difficult to shorten the intertemporal gap between Basalt's payback and return on UPPCO compared to the IEG's historical path. Currently UPPCO is on a bit faster payback path than IEG but maintaining that gap to achieve an earlier payback and similar lifecycle returns on a sale of UPPCO will be challenging. UPPCO paid out an \$11.9 million dividend the first year after BBIP acquired UPPCO, but its free cash flows to equity in the two subsequent years do not appear to support payouts of this magnitude (based on the very limited data available). If UPPCO deploys yet more capital at a higher rate of investment than its already slightly accelerated rate under private equity ownership – if those capital investments do not result in operational cost decreases that more than offset rate impact to customers resulting from the cost of payback on that capital - UPPCO's dividends to its investors would need to increase or investors will realize financial losses. This will be a challenging task for the utility's owner/operator without creating additional rate pressures, and those pressures may have already arrived.

In UPPCO's rate case (Case No. U-20176) expected to be settled sometime in late summer of 2019, the MPSC staff has recommended an allowable return on equity of 9.8% versus UPPCO's requested 10.5%.³⁷ And, acting in response to UPPCO customers, Michigan's Attorney General ("AG"), Dana

³⁷ Nichols, Robert, "In the Matter of the Application of) UPPER PENINSULA POWER COMPANY) for Authority to Increase Retail Electric Rates, Case No. U-20176).", 18

Nessel, has intervened and released a statement that “UPPCO’s case to increase rates by nearly \$10 million is simply unsupportable,” Nessel added. “As our state’s chief consumer advocate, I plan to make affordable energy prices for consumers and businesses a priority while ensuring our office continues to champion energy programs that achieve reliability and sustainability for everyone in our state.”³⁸ The AG is urging the MPSC grant no more than \$3.5 million in rate increases to UPPCO.

Based on the coarse analysis herein, even if 100% of a \$3.5 million revenue increase found its way to dividend payout, the effective return on equity on actual investment equity at risk would be 13.9% (predicated on 2017 numbers), but in 2015, UPPCO’s strongest year under private equity ownership, UPPCO only paid out \$1 in dividends for every \$10 collected in revenues. In the final rate order, if UPPCO secures a revenue increase of only \$3.5 million, this analysis suggests that UPPCO’s investors could fall victim to a rather oppressive level of PGRE – *relative to what it they may have expected to earn from returns to actual investor equity at risk* - for which no existing (or yet attempted) balance sheet accounting adjustment or financial engineering mechanism will likely be capable of counteracting. If UPPCO investors were only expecting 10% to 11% returns on equity when UPPCO was acquired in 2014, it is reasonable to ask why they wouldn’t have instead invested in a publicly traded utility with a proven track record of generating 10% returns on equity at much higher certainties than UPPCO based on its particular observable history.

If Basalt decides (or is compelled) to sell UPPCO at some point in the near to mid-term future because its financial structure and need to make additional investments results in PGRE pressures that continue to animate the MPSC and Michigan’s AG to constrain its revenues, it will be challenging. UPPCO appears to be funded with \$200 million in debt and an additional estimated \$34 million in investor equity backing \$199 million in 2017 net utility plant assets. If it is scarcely covering the ability to cash flow \$4 million per year in dividends, a disappointing rate case in 2019 will undoubtedly be a difficult pill to swallow. In the final analysis, free cash flow to equity generated from operations dictates the value of UPPCO as an investment to a private equity owner. Without sufficient free cash flow to equity adequate annual dividends cannot be paid, and this is how any rational future owner should value the utility. If those cash flows are expected to come from future rate increases, this is where rationally meets reality with a Disadvantaged Utility.

If sufficient dividends cannot be paid the only way to return on the investment is some sale of UPPCO above its [true] book value of equity. This is less than ideal for private equity investors if this takes a substantial amount of time to find such a buyer (assuming one could be found). IEG waited 17 years to recognize a gain on the sale of UPPCO at a 1% premium to its allowable return on equity when it sold the utility to BBIP in 2014.³⁹ If BBIP cannot earn its returns annually, time is a tyrant if it were forced to follow a divestiture payoff paralleling IEG’s temporal trajectory while searching for a buyer once factoring in the time value of money. In the meantime, it is reasonable to assume Basalt will continue to focus on free cash flow generation and ability to fund dividend payments. UPPCO will also, predictably, be compelled to seek out continual rate increases as each previous request is rebuffed either in part or in full.

³⁸ Dana Nessel, “AG Nessel Steps in to Protect UP Customers from Exorbitant Electric Rate Increases” (Lansing, Michigan, n.d.), https://www.michigan.gov/ag/0,4534,7-359-82916_81983_47203-490446--,00.html.

³⁹ This assumes that IEG was not leveraging UPPCO at the holding company level and it paid book value only for its assets in 1998.

If UPPCO's assets increase significantly owing to future Basalt property plant and equipment investments that fail to significantly decrease the utility's operating costs (or at minimum reduce the volatility of its future earnings), this may contribute to additional difficulties in selling the utility because its book value will be yet higher. Any future for-profit owner who might purchase UPPCO will face the same challenges and pressures Basalt currently faces, which are the same ones that IEG once faced, and should a sale occur in the future to a for-profit investor, the cycle simply begins again. It is a challenge that transcends both a specific owner/operator and the even the classification of investor – whether publicly traded equity or privately held equity. Nonetheless, motivations which influence tolerance for temporal payback expectations cannot be ignored to any stakeholder with an interest in UPPCO's future.

Extraordinary Attempts of Utilities to Mitigate Operational Cash Flow Shortfalls

It is only natural that when utilities embark upon a growth or capital investment strategy and that strategy ultimately fails to generate the operational cash flows to reach proforma forecasted returns that management will take stock of the current environment and conditions and reconsider the path forward. Predictably, the first step is almost always an attempt to cut operational expenses. In UPPCO's case and as previously illustrated UPPCO's SG&A and operational expense efficiency since being purchased by private equity investors and subsequently "de-synergized" is back to within ranges near those prior to the BBIP acquisition. Just how much more efficient UPPCO can become operating as a standalone utility is unknown, but undoubtedly incremental savings become more and more difficult to achieve as lower hanging fruit is picked. When operational efficiencies are near their highest achievable levels and utilities are still financially underperforming for non-operational reasons, often the next step is to consider more aggressive steps to drive additional cost savings or even generate non-operational cash flows to increase financial returns.

M&A and divestitures activities are often on that list of more aggressive steps. The difficulty with relying on this as a fallback strategy to increase financial performance when Disadvantaged Utilities are involved is that innate inefficiencies of Disadvantaged Utilities often masquerade as exploitable synergies are either not actually mitigatable or trigger collateral costs which are not foreseen or fully weighed. First, combining two, low-customers density electric distribution systems do not result in a single consolidated system with a higher density than the higher of the original two separate systems. At best the result is equalization at some level between the two. In reality, two distribution systems do not combine at all. They remain separate systems after consolidation so value is created by decreasing operations and maintenance costs of managing both which means reductions in operation and maintenance-related assets (e.g. line trucks) or less labor to operate and maintain the two systems. Therefore, unless one party is consistently paying overtime for labor, this generally means that to achieve synergies reductions in labor are required. Some inventorying and consumable benefits can occur, but they are often not as significant as originally estimated partly because the ability to gain such benefits requires that the two utilities involved possess compatible operational characteristics (e.g. compatible distribution voltages, identical inventories such as transformers, etc.).

Generation scalability is also difficult to achieve because two Disadvantaged Utilities rarely combine to result in a size where economies of scale make a dramatic difference, e.g. it is not the difference of going from 500 to 1,000 megawatts or even 250 to 500 megawatts for the next generation asset required but rather a fraction of these incremental increases. As such, to gain true efficiencies the entities are better off seeking out wholesale market opportunities for power supply from larger Advantaged Utilities that are long on generation capacity from units that already are at maximum performance (and economic) efficiency. SG&A synergies are likely the most fertile opportunity for gains, but if the two utilities are of diminutive size the savings to be gained will be modest. Serious consideration must be given to overall risk/reward tradeoffs of consolidation. Just as with operations and maintenance expenses, to gain such synergies, a reduction in employees will almost certainly be necessary to achieve savings. Cultural differences are always a concern with such decisions, particularly if a cooperative utility is involved, and if UPPCO were to pursue such a path it would be in a position where consolidation or divestiture opportunities would likely involve cooperative counterparties.

UP cooperatives would undoubtedly need to think long and hard before giving up their non-profit status to be willfully absorbed by UPPCO, especially since UPPCO's challenges have been so widely publicized. This is equally true as well for partial sales or divestitures of pieces of either utility's distribution systems. Either utility that would partially divest of a piece of its distribution system will have less remaining customers to spread fixed costs, and the utility that acquires part of a distribution system from the other must be able to confidently determine if the cost of acquisition will result in sufficient synergy gains to justify the acquisition costs. Because a sale of a regulated assets usually involves a negotiation with its regulator as to who much of the gain from sale is kept by the utility investors versus the customers and because UPPCO may be [effectively] earning a higher return on equity than the MPSC currently calculates (if synthetic ADIT-generated equity does factor in), in desperation UPPCO could be incented to harvest assets. UPPCO could – theoretically – do so in hope of garnering a larger share of asset sale proceeds, but this strategy is akin to harvesting one's own organs. It is not sustainable.

Utilities will sometimes harvest non-working assets, such as real estate, for “strategic” purposes (such as funding a capital investments in support of a growth strategy), but engaging in such a strategy with working assets for the sole purposes of generating non-operational earnings is rare and borders on desperation. Utilities are understandably loath to sell rate based assets. There is no credible reason to believe this is UPPCO's fate. Additionally, it would be unlikely that the MPSC would ever constrain UPPCO's financial returns to a point where UPPCO's becomes desperate and asset harvesting is the only way to avoid catastrophe (not to mention such a plan would need to be approved by MPSC). It is a much higher probability bet that a “worst case” scenario is much less dramatic. The worst case future scenario for UPPCO investors is likely something closer to a MPSC PGRE-influenced squeeze that keeps UPPCO's investors consistently (and stubbornly) just below its minimum acceptable returns on equity for its investors to be motivated to continue to hold UPPCO as a portfolio asset - speculatively, this could be somewhere in the range of a 2% to 5% return shortfall. The border of that range may lie on the margin, or just below, UPPCO's 2017 financial performance. Unfortunately, another consideration for UPPCO's investors is that the utility's earnings exhibit high historical volatility (compared to other more advantaged regulated utilities)

so this, too, must factor into the equation since earnings volatility is highly skewed towards lower returns (as data in this analysis indicates). As is generally the case with Disadvantaged Utilities subjected to higher levels of PGRE, the volatility swings may have nothing to do with the utility's managerial or operational efficiency; rather, the volatility may be attributable to systematic factors not subject to control.

The best case scenario is one in which UPPCO generates sufficient, stable cash flows to allow its investors to earn a reasonable return on their [true] investment and one that corresponds to electric rates that the preponderance of UPPCO's customers can afford. However, the Disadvantaged nature of the utility resulting from its unique geography and circumstances, its historical performance, the price which BBIP paid for UPPCO (coupled with the anticipated motivations of its private equity investors), the expected illiquidity of the investment (i.e. the difficulty it may face in selling the utility should the need arise) and finally, and quite ironically, the success level Basalt has achieved in de-synergizing the utility and operating it as a standalone enterprise all provide considerations as to why a future potential plan B for UPPCO's investors, customers and even its regulator may be warranted for the future. However, such a plan must be considered well in advance of any need to execute it, be conceived with the best interests of *all* parties in mind and avoid any related moral hazards.

UPPCO's First Interveners in Retrospect and Preparing for an Alternative Path

Circling back to where this whitepaper began and recounting the events in April of 1947 with our protagonists, Joseph M. Donnelly and Lawrence P. Walsh and UPPCO's first interveners, retrospectively, it would have been impossible to stop the incorporation of UPPCO as a for-profit regulated utility. There can be little doubt that the MPSC ruled correctly that the interveners, in fact, didn't have proper standing to seek rate relief in the proceedings let alone thwart the issuance of securities to fund the newly formed utility. Additionally, it would have been a fool's errand to attempt to block the incorporation of UPPCO itself as a for-profit utility arguing that incorporation was inconsistent with the interests of the public good under Act 3 1930, 460.6 Sec. 6 (1). The intervenors had no alternative to set against forming the for-profit investor owned UPPCO. It was a for-profit UPPCO or no utility at all.

In 1947 the cooperative and municipal interveners had no financial means or experience to acquire and operate their own generation and distribution utility. Distribution utilities were difficult enough to form and finance. Even if they had such means to acquire it and experience to operate, they would have needed standing in advance and been prepared when the proceeding began. There was no possible way to acquire the assets making up the newly formed utility for the intent of forming a cooperative. It is unlikely the owners of UPPCO in 1947 would have had any interest in selling the assets anyway. Industrial and commercial interests were the core basis for the utility's formation, and its owners surely would have seen UPPCO as a key component to providing the energy to power what would be growing industrial driven profits for decades to come. This, of course, did unfurl as planned, but that part of history has now run its course. This is not 1947. Compared to 1947, UPPCO's future, relative to its present day circumstances, is profoundly different but so too are the possibilities available to its customers to acquire the standing they need to protect their own future interests – industrial, commercial and residential customers alike – if the opportunity should present itself.

The Whitepaper in Review

This whitepaper has provided a brief historical background and a related hypothesis as to why UPPCO became a for-profit utility while other rural regions in the country with similar, low customer densities become non-profit utilities. An explanation has also been offered as to how the misalignment of the for-profit IOU model with UPPCO's territorial characteristics was masked for 16 years while owned and operated by WPS Resources and Integrys Energy Group. From 1998 through August of 2014 UPPCO was operated as an on-again, off-again de facto, not for-profit utility at the subsidiary level and more than likely its publicly traded, utility holding company owner relied on consolidated synergies with other affiliates of its holding company to justify its continued investment. With heavy reliance on FERC financial data, the historical portion of the narrative concludes by engaging in informed speculation as to why the sale of UPPCO to private equity investors in 2014 has likely changed the key motivational dynamics of its current owners and why UPPCO's investors will likely not only continue to bear the innate inefficiencies of the utility but

continue to be set against its regulator's obligation to manage UPPCO's revenues downward in the public interest for the public good (i.e. the influence of PGRE).

A Case for Preparatory Action to Form an UPPCO Member-owned Cooperative

There are other considerations with this new ownership paradigm but which speak to the nature of its continued regulation. Prior to UPPCO's sale to a private equity investor Michigan's regulated electric utilities have all been publicly held subsidiaries with similar financial management motivations with the accompanying financial transparency required by the Securities and Exchange Commission (SEC) resulting from public reporting requirements (at the holding company level). In the interests of the public good, particularly UPPCO customers, Michigan regulators should take a broader view of UPPCO's regulation and a need for more transparent disclosure related to its financing and holding company activities. Based on a review and high-level analysis of data filed by UPPCO with the FERC at the utility level, UPPCO testimony in Case No .U-178595 regarding its ADIT election and MPSC testimony in UPPCO's current rate case (Case No. U-20276) relating to UPPCO's holding company financial structure, it has been shown that UPPCO's capital structure, specifically its debt levels, were significantly altered upon its sale to BBIP without a commensurate addition of physical property plant and equipment. Furthermore, applying various metrics and financial analysis methodologies typical of those used to evaluate private equity asset performance, it has been demonstrated that several important indicators, including UPPCO's free cash flow to equity and dividend payments to parent, immediately shifted towards levels private equity investors would view as closer to ideal performance as compared to its historical record. This substantiates a logical outcome consistent with the rational motivations of private equity investors and therefore one that was reasonably predictable prior to the sale of UPPCO in 2014.

Unreasonable, however, is an expectation that UPPCO's owners will voluntarily operate UPPCO by setting target returns to its investors below its cost of capital (in consideration of the utility's risk) and that the MPSC will cease to manage rates in the interests of UPPCO's customers who are paying some of the highest rates in the U.S. This is a zero sum game for UPPCO investors and its customers where neither may be able to achieve, or possibly even approach, an optimal simultaneous outcome. For UPPCO investors, at best, this would be achieving returns commensurate with larger utilities with less volatile earnings, and for customers this would be to secure the lowest electric rates possible that can only be achieved through non-profit, cooperative ownership. However, while UPPCO's customers are captive with little power, UPPCO's debt and equity investors presumably are not without some ability to influence outcomes that affect their own interests should those interests become jeopardized. Consequently, it is with them one might expect to see the first signs of a desire or willingness to explore an alternative path forward for the future of UPPCO.

In the long term, whether arising from UPPCO's recent changes to its capitalization structure or regulatory policies which do not facilitate the generation of adequate cash flows to satisfy UPPCO's debt and equity holders (or some mixture of the two), it is important that Michigan regulators are not blind to metrics that would provide such leading indicators of dissatisfaction. Regulators with histories written entirely by the regulation of publicly traded utility holding companies are familiar with and experts in instituting and enforcing metrics that insure a public utility holding company's

health. However, they spend much less time empirically measuring it. Core regulator activities include instituting debt-to-equity ratios, setting allowable returns on equity and applying allowable returns on equity to rate based assets to determine revenue requirements. The totality of a measuring a utility's wherewithal to maintain stable financing is a comparison of a utility's returns on equity against those allowed (regardless of how the volatility maps to peers) and an interest in the utility's debt ratings (which under most cases undergo little change).

In the rare event that a public utility holding company shows signs of financial risk to its investors, they become ill in a very non-discreet and public way – like getting openly sick on a commuter train during rush hour - stock prices will become volatile and possibly fall, debt ratings might be downgraded, CEOs are flushed into the open to disclose in withering detail to Wall Street analysts on quarterly calls what is causing the illness and their plans to restore investor confidence. This is rare – very rare; in fact if it does happen, it is most likely not the result of the large, regulated utilities within their portfolios (because regulators do well in insuring they do not get so much as a cold) but rather as history tells us, it is more than likely the result of some misadventure outside the regulated markets. What this means is that it is rarely necessary for a public utility regulator to be required to repeatedly insert a thermometer into the internals of a large, regulated utility electric utility analyzing the types of metrics discussed in this narrative. This is for Wall Street mutual fund and investment bank analysts to puzzle over, and on a rare occasion when a utility holding company becomes unhealthy and vulnerable, one can expect M&A marauders and their hired “quants” to take an interest numbers and analysis to generate them.

The health of a large, regulated utility is virtually guaranteed by allowing reasonable returns on its equity (sometimes extra-reasonable returns) in conjunction with limitations placed on its debt financing levels. They rarely get sick, and in the rare event that holding companies do get sick from exposure pathways that were outside the regulators' control, regulators are going to learn of it soon enough because of the efficiency of information transfer in the public financial markets enabling regulators to take precautionary, mitigating action. Lastly, publicly traded holding companies tend to be rather robust. This is in no small measure owing to the fact that they hold stable regulated utilities to buffer the shocks of any strategic misadventures that caused them to stray from the safety (or abuse of the privileges) of regulated utility ownership in the first place. With this in mind, the possibility of regulatory risks arising from “survival bias” should not be ignored. If utilities are all managed through these regulatory mechanisms and all survive, then there is a tendency to point to the health of the survivors as a counterargument to broadening the scope of regulatory management in the case of a utility such as UPPCO (which clearly falls outside the domain of large Advantaged Utilities).

The electric utility regulatory structure is adapted to manage a typical but very a specific set of parameters that normally include 1) a utility holding company that is primarily made up of one or more large, highly, efficient regulated utilities with favorable customer densities; 2) equity ownership that is publicly traded where the holding companies are subject to SEC regulations requiring reporting and financial transparency and 3) utility holding companies that enjoy very reasonable returns on equity for its investors made possible by the size, efficiency, high customer density and low volatility of earnings of the utilities they hold capable of coexisting with reasonable

rates for their customers. By now it should be obvious why UPPCO doesn't fit the typical pre-conditions for a high functioning application of the for-profit regulated utility model, but suffice it to say that relative to other regulated utilities UPPCO is different. It goes beyond theory. Its financial data belies any argument to the contrary. This must be considered with the fact that unlike a publicly traded holding company, UPPCO operates much more opaquely.

It is not clear to the public what the terms are between investors in the private equity fund that holds UPPCO and its owner/operator or key elements of its financing. It is not clear when and under what conditions equity investors can withdraw their capital; if there are restrictions limiting UPPCO's owner/operator to sell UPPCO in part (e.g. pieces of its distribution system) or the utility as a whole; why, specifically, the rating on UPPCO's holding company, UPPHCO, has been downgraded to below investment grade; its exposure to interest rate risk associated with refinancing the principal on its debt (to date its shown no principal repayment in FERC filings) or assurances that its equity is not levered to unsupportable levels given the electric rates UPPCO customers can bear. Most of these questions are unnecessary to ask with the transparencies taken for granted with publicly traded utility holding companies.

A point which cannot be understated is that regulation in itself is a consciously manufactured inefficiency instituted to counterbalance (more serious) innate inefficiencies in the electric market, but regulatory inefficiency does not affect all regulated players equally. This is the powerful effect of PGRE. UPPCO represents a sample utility within the universe of all regulated U.S. electric utilities in which regulation affects more negatively than the total population. The symptoms of this asymmetry are that it historically has not consistently earned its allowable return on equity investment (even though data suggests this is not a consequence of ineffective cost management); furthermore, in a traditional financial investment theory context, its revenues are likely not set at levels where it *could* earn an adequate return on its equity if one were to consider other, larger and less risky regulated utilities as the "market portfolio" available to investors (refer to endnotes for further discussion on this point).

None of this appears to result from a discernible fault of UPPCO's current owner (exogenous to the risks it implicitly exposed itself to when it purchased the utility in conjunction with the ADIT election and leveraging of its equity investment), who like UPPCO's previous owner, is subject to the interests of the public good when the MPSC sets its revenue requirements. With history as a judge and an ability to compare UPPCO's current cost of operations compared to what was achieved by its former management that concurrently operated a very efficient, but larger, electric utility with a very moderate rate structure, there is no indication that UPPCO's current management is not at least meeting, if not exceeding, expected administration and operational cost efficiency. Given the challenges, costs and related uncertainties of UPPCO's separation from its previous owner's shared services group, there is a reasonable argument to be made that it is surprising its administration and operational costs are not higher. Only through utility regulation arising from the natural monopoly model could two utilities operate with nearly identical efficiency and cost effectiveness, deliver identical products and services and yet one be materially financially underperforming in comparison to the other.

Reasoning from a comprehensive viewpoint gained from analyzing UPPCO's historical and current financial performance, the presumed motivations of its past investors versus its current investors, the nature of its more opaque financing and changes to its capital structure and debt levels in conjunction with a regulatory policy (that will likely undergo little transformation), it seems reasonable and prudent to position UPPCO's customers to gain proper standing to take control of the utility as a non-profit if the opportunity presents in the future. A call for such preparation should not be regarded as an urgent and immediate need arising from some rapid, dramatic and unavoidable financial instability, but rather, a reasonable proactive step. In an impartial financial analyst's contemplation of all possible mid-range futures for the beleaguered utility, certainly one such future exists where the financial juice to UPPCO investors may no longer be worth the rate setting squeeze the MPSC will likely be obligated to continue to apply. Therefore, if such an opportunity to procure the utility arises unexpectedly (even if very orderly and planned well in advance by UPPCO owners), its customers will not have proper standing to offer an alternative to UPPCO's current owner's plan for a divestiture of the utility unless a number of preparatory steps are taken. Some of these steps the state of Michigan's leadership must be proactive in supporting and facilitating. Call this a low cost hedge in a benign view of the future or a "stop loss" action in a more pessimistic outlook.

A Roadmap for a Potential Alternate Future Route for UPPCO

First and foremost, UPPCO customers must form a member-owned cooperative with a charter reflecting the purpose of organizing as intent to own and operate UPPCO as a non-profit cooperative. It will be necessary to form an interim board of directors to represent the members. UPPCO's territory is sufficiently large and diversified that it can successfully assemble a capable cooperative board with the appropriate regional, industrial, commercial and residential customer representation with an added ability to draw upon the talent of Michigan Technological Institute with their willingness to do so (if not already represented on the board). Once the board is assembled and UPPCO customers have established a state recognized cooperative that fully represents their interests, it will be possible to engage with financial lending institutions to discuss financing the assets of the utility in advance.

Although it will be impossible to secure binding commitments for financing without an agreement from UPPCO owners to sell the utility and engage in formal due diligence, there is sufficient public information available for a lending institution to conduct a preliminary evaluation and offer an expression of interest. To date, UPPCO has always covered its debt payments; therefore, it possesses a track record to support a viable (if not always profitable) utility. The looming question is if it can be 100% debt financed at the necessary debt service coverage levels required by a lending institution. Public information required for such a tier 1 financing analysis would be supplemented by any additional information made available through commission dockets resulting from favorable Michigan AG and MPSC's rulings granting access to such information. As a cooperative with a lending institution's non-binding letter of intent (or expression of interest) stating it has conducted a tier 1 analysis with intent to pursue further interest in financing the cooperative, the MPSC should be required to grant the newly formed cooperative intervener status

in all future rate cases if the cooperative chooses to intervene (not dissimilar to the standing given today to non-profit interveners today).

If UPPCO's customers are sufficiently motivated to form a cooperative, and a financial institution subsequently expresses an interest in exploring the opportunity to lend the debt capital, there will be one final step. The newly formed cooperative interim board of directors will need to secure a commitment for funding to pay for the associated transaction costs in the event a sale transaction occurs. UPPCO customers will have no capital or financial resources to fund the activities of the sale (these are legal and financing costs for the preparation of regulatory filings and expert testimony for the MPSC and a potential need for executive consultation support for the board of directors during transition). This funding will need to be secured through private sources and paid upon successful purchase and conversion of the utility. Unlike traditional private equity capital which invests in physical assets (like utilities), this unique class of private equity investor would fund only activities related to the purchase transaction, financing and regulatory tasks and would have no further role once the sale is complete. This is expensive capital (given the unique nature of the funding with no physical assets to back the investment and significant risk if the transaction does not close), but the capital would be associated with specific tasks and of a known quantity, paid only upon success and with a short, if not immediate, payback to UPPCO customers. However, it can only be secured once the cooperative is formed, the cooperative has an expression of interest from a lending institution and the cooperative has been given standing with the Commission (or provided an opinion on standing by Michigan's AG). The transition investor would then stand ready to fund the purchase of UPPCO on behalf of its customers should the opportunity arise within a pre-determined window of time.

Key is the Michigan AG's willingness to provide an opinion on the newly formed cooperative's rights to secure proper standing to intervene in any future UPPCO regulatory proceedings. Specifically, such proceedings would include any attempt by UPPCO's current owners to sell the utility to another for-profit investor or any proceeding which addresses UPPCO's underlying capital structure, financing condition or status, including compliance with covenants with its lending institutions or funding agreements associated with equity investors which could affect the utility's continued viability as a for-profit institution or impair the cooperative's ability to acquire the utility for purposes of operating it as a non-profit. As an example, the act of increasing UPPCO's long-term debt by 57% in 2014 as a result of the BBIP acquisition would represent such an event that significantly factors into determining the utility's valuation. Such standing to intervene by the cooperative will establish a clear and unambiguous signal to UPPCO's owners that it is in its best interests to engage UPPCO's customers through its cooperative concurrently with other potential utility buyers because the cooperative will be granted intervener status to make its own case and arrange the necessary pieces to acquire the utility regardless of whether it was provided an opportunity to do so prior to filing.

If UPPCO's current owners should fail to engage the cooperative in advance of filing with the Commission and deny the cooperative the same opportunity as other prospective buyers to negotiate a sale in advance of filing, UPPCO's owners would be unable to argue that the cooperative should be disallowed intervener status in any proposed sale of UPPCO. UPPCO's owners would be

disarmed of any argument that such an intervention will obstruct the sale or timeline for which the terms and conditions are already agreed to in principle with a counterparty (which is always the case by the time a utility files). UPPCO's owners would possess foreknowledge of the regulatory ruling (or a Michigan AG opinion) on the issue of UPPCO cooperative standing for purposes of developing and tendering its own offer to acquire the utility. Granting a newly formed UPPCO cooperative standing in advance will avoid the fatal flaw Joseph M. Donnelly and Lawrence P. Walsh faced and could not possibly overcome in April of 1947 when it intervened in UPPCO's regulatory approval of its incorporation. Giving UPPCO customers standing in advance, or at least a written opinion by Michigan's AG, will maximize the opportunity for UPPCO's customers to acquire the utility and make a complete and thorough case to the Commission that the sale of UPPCO to the cooperative for purposes of conversion to a member-owned non-profit is in the customers' best interests.

There is one other solid reason for pursuing this path. This also guards against placing the Commission in a future position of not having a viable alternative to an obligation to approve a sale of the utility to a potential future, for-profit acquirer imbued with more capital and optimism than experience with utility regulation and aptitude for conducting an associated financial and risk analysis. The Commission in 1947 ruled that it could not be reasonably argued that allowing the incorporation of UPPCO and issuance of its securities to fund it could be contrary to the customers' interests, presumably because the alternative to having a utility was having no utility at all. The Commission today faces these same types of considerations. The Commission can only institute reasonable order points associated with a sale of a utility if a buyer demonstrates financial wherewithal to operate and maintain it. In the event a utility's current owner were to become non-viable (or simply disinterested in continued ownership) for any reason, any alternative that meets minimum standards might be viewed in the customer's best interests even if the sale were to include a significant rate hike (or lack rate freezes) as a trade-off for reestablishing long-term stability.

It is as unreasonable to expect (and likely unlawful for) the Commission to act as an advisor to potential utility acquirers, even if it wanted to, or issue warnings or discouragements based on what they know will be regulatory revenue squeezes to come. It is equally unreasonable to expect that the UPPCO's owner will sit any future potential buyer down, look them squarely in the eyes with a concerned expression and ask, "are you really sure you want to do this?" The only protection against an irrational future buyer's pending investment misadventure is providing for the most logical alternative to for-profit ownership to hold up against it. This can only be done by preparing in advance. Should UPPCO be allowed to be sold to another for-profit investor above or near its current book value, the cycle only begins again as UPPCO's inherent unsuitability as a for-profit electric utility beings to reveal itself over time, manifesting openly to another owner in all too familiar ways.

The state of Michigan should also earnestly consider providing the financial security necessary to back financial obligations of the cooperative a commercial lender may require. Although, not ideal, a future UPPCO cooperative could consent to be regulated by the MPSC to insure that the state of Michigan's financial interests are protected in the event it did back the cooperative debt. In

advance of all of this, it would be appropriate and necessary to draw a very distinctive line, one which should not be crossed by the state or its agencies to avoid even the perception that the state or its agencies advocate for the sale of UPPCO for any purpose or that it seeks to exert any influence over UPPCO's future outside of conventional regulatory governance. This would constitute a significant moral hazard to be avoided at all costs. This is why an appeal should be made not to the MPSC but to the Michigan's AG, its political representatives, governor and even its treasurer to consider how they might play a role in helping UPPCO customers seize any opportunity – if and only if – such opportunity presents itself as a result of a voluntary decision by UPPCO's current owner to sell the utility.

Conflating Complexity of Outcome with Uncertainty of Outcome versus the Risk of a Preparatory Process

The process is less complex than it might appear; it just has not been done before (to the knowledge of the author) which results in a higher uncertainty of ultimate outcome, but the process as outlined does not entail high levels of risk because it requires only a very modest investment in time, e.g. if Michigan's AG will not consider offering an opinion on UPPCO customer standing as a cooperative as described, the process ends without bearing any risk. Conversely, if the AG decides otherwise, the potential payoff is significant. In reality, the most critical consideration is the arrangement and sequencing of tasks that must take place for the preparation. These steps must begin and the appropriate pieces put into place in advance of an opportunity to respond to acquire UPPCO with the appropriate standing in place with the Commission; otherwise, customers will be in the same position Donnelly and Walsh found themselves in April of 1947. In some ways, a for-profit utility to cooperative utility transition is less complex in terms of risk identification and transfer as compared to the sale of the utility to non-customer owners. With the exception of fraudulent action or willful misconduct on the part of UPPCO's owners for which the MPSC would likely disallow recovery to mitigate the consequences, the risks of UPPCO as an operational concern are already borne by its customers. Risks translate into costs which take the ultimate form of rates. Customers, as cooperative members, would continue to bear these same risks but without the obligation to fund the returns on equity investor capital, pay future income taxes or distribute dividends.

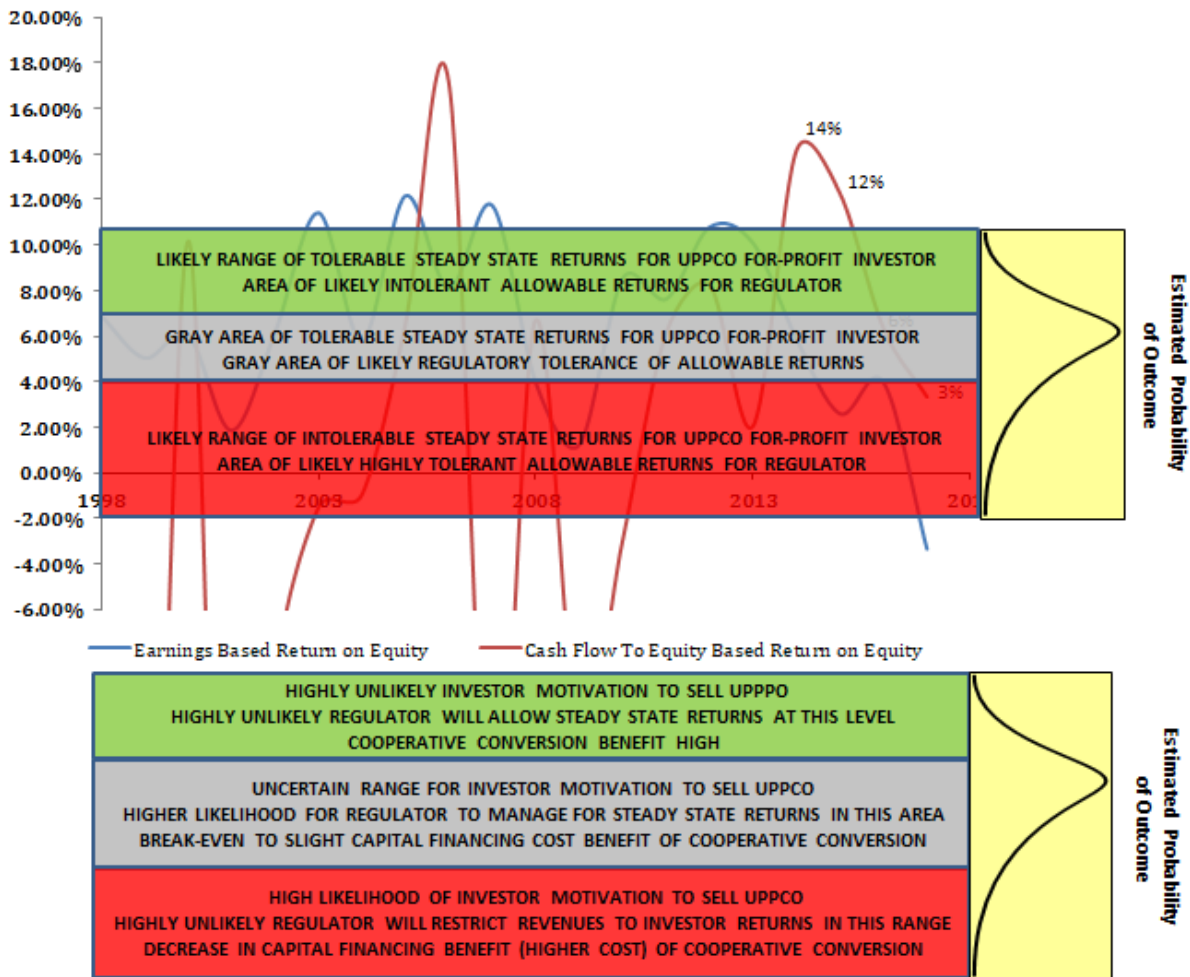
In terms of operational transition risk to a member-owned cooperative, there is no data to suggest that UPPCO's current "on the ground" administration and operation in Michigan necessitates overhauling. It is unlikely much, if any, of its daily operational guidance is provided by its parent from New York or London. Anecdotally, if UPPCO customers are given the opportunity to purchase the utility and operate it as a member-owned cooperative at some point in the future, it would only have been made possible through BBIP's purchase of UPPCO from IEG (and its subsequent sale to Basalt). The risks of concurrently separating from IEG and transforming into a member-owned cooperative would have almost certainly been too large a risk to bear in a single step. UPPCO has now proven its ability to effectively and safely operate as a standalone, Michigan headquartered utility, and this was made possible by the risks borne by its current private equity owners. This does not mean that a transition would be automatic and without risks; nor, should customers have

unrealistic expectations about immediate, substantial rate reductions. There is a significant irony to be confronted.

Realistic Outcome Expectations from Achieving Successful Cooperative Conversion

If a purchase of the utility could be arranged for the purposes of conversion to a cooperative, it would require 100% debt financing. This means its equity would be purchased with yet even more debt than it is currently carrying (if purchased above its book value). For most utilities debt costs are considerably less than equity, but as has been demonstrated that at times UPPCO’s returns to its equity investors did not exceed its cost of debt, and it is possible that it may not, at least periodically, in the future. The irony is that the more the utility struggles as a for-profit enterprise as measured by returns to its equity holders, the less that can be gained (financially) if converted to a non-profit cooperative.

Qualitative Assignment of Probabilities of UPPCO Return on Equity Ranges Relative to Cooperative Conversion Likelihood and Capital Financing Benefits



This is why if a UPPCO “cooperative in waiting” is formed that any attempt or coercion or strangling its investors’ returns on equity through intervention would be counterproductive to the interests of

its current customers or future interests of converting it to a cooperative. In theory, it is to UPPCO customers' benefit for the utility's current investors to operate at a loss to equity (maybe even if just episodically) to the extent such a weakened financial condition does not increase the interest on the utility's debt. This effectively results in lower electric rates than could be achieved even as a cooperative. However, the amount of leverage that appears to be applied in UPPCO's case mitigates many of these effects because there doesn't appear to be much actual investor equity capital at risk financing the utility relative to its debt financing. More than likely the utility's future will play out in a gray area of operation – not quite earning a reasonable return for investors but still not quite failing so badly as an investment to make a divestiture a clear cut decision for its owner. Complicating the decision is that free cash flows to equity are inherently “lumpy”, and UPPCO's earnings are much more volatile than an Advantaged Utility. This makes determining what might be a stable future trend from one or two years of data points nearly impossible to determine for its investors.

For UPPCO investors, it is possible that UPPCO is already operating in the “red zone” considering its estimated return on actual invested equity capital at risk and the effects of holding company leverage. It may not make sense for UPPCO investors to continue holding the utility without additional rate increases above the limits Michigan's AG is currently urging MPSC to impose. However, it is possible that the MPSC may view UPPCO as operating in the “gray zone” and will follow the Michigan AG's lead and be disinclined to grant future significant revenue increases as a consequence of the level of disruptions and the secondary, and arguably somewhat hidden, effects of the ADIT transaction and amount of debt held off UPPCO's balance sheet. This likelihood could be enhanced by MPSC's inexperience in conducting financial analysis at the level of sophistication required to understand UPPCO's true condition and need for rate increase to provide stability. If UPPCO is operating in the red zone, even if demonstrable benefits to customers were assured from cooperative conversion, converting the utility to a member-owned cooperative may not have the dramatic outcomes customers may anticipate.

UPPCO, as a future potential cooperative, will need to build equity (or in cooperative parlance “capital credits”) through earnings which exceed those needed to operate the utility. It would be a very a long time before UPPCO customers would see any return of capital credits (but nor would they have staked any equity either). Consequently, with a need to build that equity, it may be a significant period of time before members feel any discernible relief whatsoever in their rates. In fact, it must be accepted that successful conversion may result in only a suppression of rate increases combined with a bit more rate stability rather than rate decreases. UPPCO is, after all, a Disadvantaged Utility. Nonetheless, all such outcomes would flow from decisions made by board members of a cooperative that customers elect to represent them, and customers themselves would be owners of their own utility. Conversion may make the most sense as a defensive play to circumvent a sale of UPPCO to another for-profit investor rather than an offensive play to proactively acquire the utility in hopes of substantially improving customer rates because based on this cursory (and very high level) analysis there is no reason to conclude that the utility is being operated inefficiently.

However, if the utility is converted to a member-owned cooperative there is one certainty. UPPCO's customers would gain peace of mind, and future questions of investor and customer conflict in utility decision-making inherent to all for-profit utilities, regardless of condition, would cease to exist. Given UPPCO's current state, the need for customer peace of mind and possibly even an exit opportunity for UPPCO's current owner, it is time for Michigan's leadership to consider how it can facilitate UPPCO's customers' ability to gain the standing that Joseph M. Donnelly and Lawrence P. Walsh lacked in April of 1947 when UPPCO was formed. UPPCO customers must first do their part and demonstrate their willingness to organize under a newly formed cooperative, but they will need the requisite standing (ideally first) for any hope to acquire the beleaguered utility if the opportunity presents itself. If that opportunity does arise, selling UPPCO to its customers for purposes of its conversion to a member-owned cooperative may very well benefit all stakeholders involved and put an end to this long-running zero sum game.

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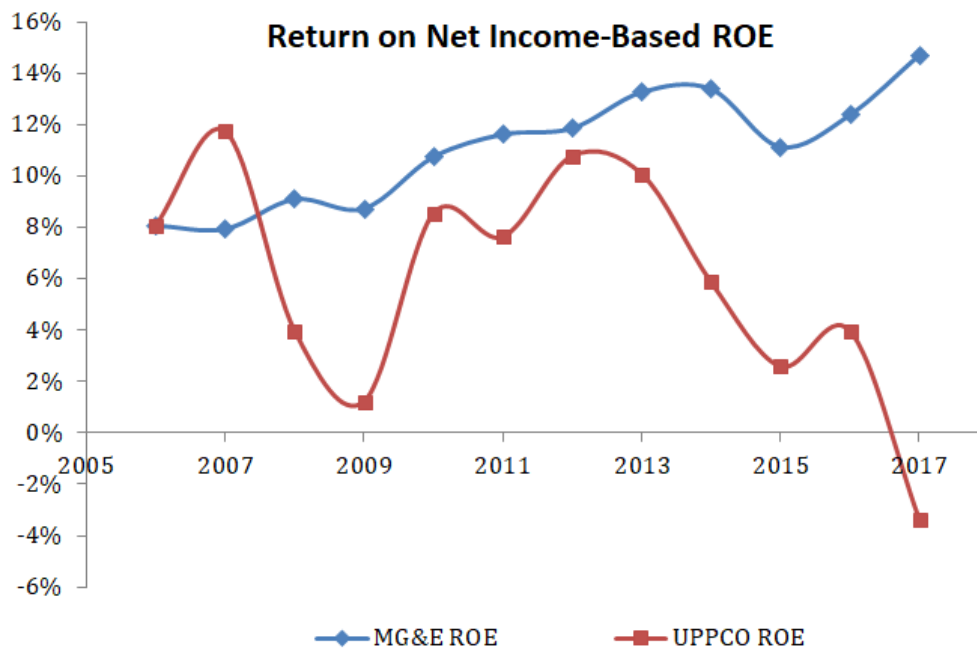
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ⁱ A disadvantaged electric utility or “Disadvantaged Utility” is one which is faced with a number of inherent market inefficiencies that are specific to the electric market. They are generally defined as three (3) “physical” inefficiencies affecting operation of the utility that influence its operational costs and risks of return on invested capital. They are as follows: 1) inability to achieve economic scalability (or density - both customer and electric sales); 2) barriers to market entry and exit; 3) inability to achieve indivisibilities of production and one (1) regulatory imposed inefficiency that affects utility investors’ ability to achieve allowable (and reasonable) returns on equity investment: Regulation of Electricity as a Public Good or “PGRE”. A Disadvantaged Utility generally suffers from lack of ability to economically scale if it has a low customer density (measured as customers per distribution line-mile) or low energy sales per customer. Disadvantaged Utilities are often smaller than Advantaged Utilities; however, size alone does not determine the disadvantage, albeit size will inhibit the inability to economically scale when considering the inability to spread fixed costs such as operations and maintenance costs over a large number of megawatt hours sales or general and administration expenses (SG&A) over a large number of customers. The high voltage transmission system inherently imposes severe barriers to market entry and exit for all players, but a Disadvantaged Utility is located in a highly (or uniquely) constrained market (e.g. a peninsula) with extraordinary interchange barriers relative to a [more] “Advantaged Utility”. Inability to effectively divide production (indivisibilities of production) is a form of economic scalability but specific to electric generation. A large, Advantaged Utility would be capable of dividing its production into a larger number of units to mitigate single-shaft risk (risks borne by having too few generating units) to mitigate transmission constraints but whereby each unit is still large enough to achieve operational and economic scalability advantages. PGRE is the inability of an electric regulator to allow a utility to set its rates which allow for reasonable returns on equity commensurate with Advantaged Utilities irrespective of a Disadvantaged Utility’s operational and managerial effectiveness. It is a regulatory market efficiency imposed on Disadvantaged Utility Investors because of the existence of the three (3) inherent [physical] electric market inefficiencies bearing down on a Disadvantaged Utility that result in higher operational expenses and risks. UPPCO would be considered a demonstrable case of a Disadvantaged Utility beset with all three physical market inefficiencies and resulting PGRE manifested in regulatory policy as it relates to determining how much UPPCO is allowed to collect in revenues and in setting its allowable return on equity without full consideration of its excessive volatility in financial returns. Much of its volatility is driven by lower margins creating greater return on equity swings from only modest changes in revenue and expenses or what might be termed the “margin effects of volatility” as compared to Advantaged Utilities (reference Benninghoff 2018).

ⁱⁱ The time period for this comparison is very short and includes the 2008 financial crisis which was an extraordinary market event. Therefore, expected returns of utilities will be lower when compared to the highly volatile benchmark market in this period. This table is only meant to illustrate relative differences that would be calculated by CAPM model and actual returns that occurred in consideration of the individual volatilities of the utilities and the indices listed. Regulatory agencies utilize various models, including CAPM, to determine utility allowable return on equity and typically use much longer timeframes. For UPPCO, in rate case No. U-20176, MPSC used individual utilities as a proxy group and compared them to a reference market portfolio (or benchmark market) to calculate relative risks of each utility, calculated the CAPM expected return for each utility and then averaged them to arrive at what they determined to be a reasonable rate of return on equity for UPPCO. In the author’s opinion, CAPM would return a better result if UPPCO’s actual historical risk of return were compared to the market portfolio (or appropriate benchmark market such as the S&P utilities index) for a direct comparison of UPPCO’s risk relative to the market portfolio rather than using a comparison of the average of a proxy group. It may be the case that long-term “in-kind” data is not available to the MPSC for UPPCO to confidently perform such an analysis. The analysis in this whitepaper addresses UPPCO’s actual financial performance and the total risk facing UPPCO including unsystematic risks which are extremely important in assessing performance in the real world when valuing a specific enterprise in its micro market. CAPM assumes unsystematic risks are diversified away in the market portfolio to which the asset of interest is compared, but total risk of the asset evaluated is used to calculate its beta (or risk)

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relative to the market; therefore, to average the risk of a proxy group of utilities that do not represent the actual risks of the utility analyzed, particularly if it is unique to most publicly traded utilities, fails to account for the true and unique investment risk of the utility in question. In UPPCO's case, the proxy group the MPSC used to perform CAPM calculations was comprised of individual utilities that were all publicly traded utilities but with selection criteria for size that resulted in the average proxy utility being 16 times UPPCO's size measured by utility net plant. Paradoxically, UPPCO's consultant who submitted testimony apparently utilized a proxy group in which the average utility size was over 5.5 times that of the proxy group used by MPSC staff. Nevertheless, as will be discussed, the size of a utility is not always an accurate indicator of its efficiency, risk and return anyway. In order to effectively use CAPM and obtain a result with a reasonable level of confidence, analysts wish to use large data sets. Publicly traded utility companies make up the only repository of such data, and publicly traded utilities will inevitably be much larger than UPPCO on average. Nonetheless, these proxy utilities were selected on size alone rather than selected to approximate the unique regional and operational risks facing UPPCO and therefore, in the opinion of the author, should not be relied upon – either as individuals or as a proxy group average regardless of size - to accurately model UPPCO's unsystematic risks that would represent its actual expected returns. This is almost certainly a contributing factor to the divergences of UPPCO's allowable returns on equity and its actual returns in the real world. For example, MGE, Energy, Inc., the parent company of Madison Gas and Electric (MG&E), is included in the proxy group with a calculated beta of 0.65 in the MPSC's analysis. Over the period from 2006 to 2017 MG&E and UPPCO's risk as measured by beta against the market portfolio (in this case S&P 500 returns) would be almost indistinguishable (0.034 versus 0.049 respectively). Using the risk premium of 7.07% of the market to the risk free rate of return the MPSC used in its analysis the expected return differences in the utilities would deviate by only 0.11%. However, their actual returns and the volatility of those returns over the same period analyzed – relative to one another – are significant and the variations *negatively* correlated demonstrating that these two utilities in no way can be seen as interchangeable in terms of financial investment risk. Although this is a very short time period for analysis, investor returns are critical and measured from year to year in the short-term both by investors themselves and the Commissions that regulate them (rate cases may be separated by only 1 or 2 years). CAPM may provide some value by generating estimates of reasonable returns relative to utilities *in general* but should not be relied upon to assess actual, unsystematic risks of a given utility in a given micro market, particularly if a proxy group is used, to predict actual return on equity performance in the real world.



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Similar problems arise in the MPSC's analysis when using the dividend discount model to estimate cost of capital. The Commission used an estimated 5% earnings growth rate which was the average of all utilities individual growth rate forecasts taken from Yahoo! Finance. Real levelizing UPPCO's actual dividend payments from 2006 to 2017 would result in an approximate 2.75% "sustainable" dividend increase over that period beginning with a \$4.5 million dividend payment in the first period. One must also consider that in multiple years under IEG ownership, UPPCO's largest dividends appear to have been debt financed, and dividends paid by UPPCO under private equity, while not debt financed, are decreasing, so even in this case, the dividend discount model may overestimate UPPCO's true sustainable dividend. These conditions along with an expected return of 10.5% on equity – would approximate a more sustainable UPPCO's dividend based on its actual history at close to its allowable return on equity for the period from 2006 to 2017. The model estimated the value of UPPCO's equity at approximately \$60 million for the first period. This first period value correlates to UPPCO's 2006 book value of equity of \$64 million and valued UPPCO at \$4 million *below* its book value of equity (or an implied P/E ratio of 6.94).

Now consider that UPPCO was acquired in 2014 at \$52.1 million above its 2013 FERC reported book value of assets. In light of the issues it faces in terms of revenue sufficiency, its actual returns on equity versus its allowable returns on equity and the magnitude of resultant rate pressures resulting from an attempt to reconcile these imbalances, the picture should be somewhat clear as to why theoretical models using "representative utilities" must be highly scrutinized when applied to UPPCO. As a point of comparison, applying the same methodology of real levelized dividends to WPSC over the same period resulted in a valuation very close to what would be reasonably expected to be the utility's actual 2006 value in the market at an implied P/E ratio of 12.95. Of course, WPSC's actual dividends paid were greater relative to its equity base and more consistent than UPPCO's. This example should not be misinterpreted to mean that UPPCO should have been given a lower allowable return on equity by its regulator. Rather, the point is that such analysis should raise red flags to any potential acquirer that without significantly cutting costs or raising rates (or possibly both) that acquiring a utility with these characteristics at well above its book value presents a problem that will almost certainly result in a future conflict requiring resolution. That conflict is the utility regulator's obligation to regulate in the interests of the public good versus the utility investor's right to earn a reasonable return on its investment. If an acquirer were counting on a regulator's theoretical models as a guide to what could reasonably be achieved in practice this would undoubtedly contribute to the divergence in allowable and actual return outcomes. Furthermore, there are a number of more philosophical questions at play. What is a regulator's obligation to set rates such that a utility investor earns a reasonable return on that amount of investment over book value an investor paid or to compensative the investor for the inherent risks of utilizing significant amounts of leverage to enable that purchase? Does the regulator take into account the fact that a previous owner/investor did not consistently earn its allowable return on equity and often did not pay dividends or maybe debt financed the dividend it did pay out? Does this justify applying leverage at the holding company level to achieve [at least] allowable returns, and if so, should the investors be awarded a risk premium on the allowable return for higher risks it incurs with more debt? These are larger and very difficult questions that are well outside the scope of this whitepaper, but ones that emerge most stubbornly in the case of for-profit, Disadvantaged Utility investment and regulation.

All that can be said with certainty is that it is not a utility regulator's charge to determine what is reasonable for an investor to expect to *actually* achieve in terms of returns in consideration of what they may have paid to acquire a utility; that is the job of the utility investor to weigh against the totality of operational and regulatory risks and its chosen financing structure. The caution is that what is reasonable as calculated by a regulator and what a utility investor can practically achieve in the market should not be conflated. In the case of a utility such as WPSC, using conventional levels of debt and equity, they may converge, but in the case of a utility such as UPPCO faced with a myriad of disadvantages utilizing more aggressive financing, they might very well diverge. Nonetheless, this whitepaper places little focus on UPPCO's allowable rate of return on equity (based on theory) and much more focus on its historical risks and returns to engage in induction in order to speculate on its likely range of future outcomes. For more information on how UPPCO's allowable return on equity is currently calculated by the MPSC refer to testimony of Robert F. Nichols in case No. U-20276 (<https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t0000004GVJUA44>)

iii WPSC and WEPCO are used for comparisons throughout this article both because they factor directly (or indirectly) into UPPCO's history and because owing to geography the Upper Peninsula electric market is more closely tied to Wisconsin than Lower Michigan. However, it is important to note that UPPCO is regulated by the MPSC and WPSC and WEPCO are regulated by the Wisconsin Public Service Commission so policies will not always align between the states.

iv UPPCO's CTO testified that BBIP "did refinance its long-term debt...." He goes on to testify "the direct costs attributable to UPPCO from the refinancing of *this* \$108 million [emphasis added] in long-term debt which was sized to ensure that the debt to equity ratio of the Company was in line with requirements of the Order." BBIP's CTO claimed that "the Order in Case No. U-17546 also stated that UPPCO customers would not be responsible for any financing costs associated with the transactions as contemplated by the Stock Purchase Agreement, but this condition did not apply to new financing or refinancing of existing UPPCO debt by UPPCO" (Manz, September 2015, Case No. U-17895). The long-term debt in UPPCO prior to BBIP's purchase was \$60 million – not \$180 million; therefore, the characterization of "this \$108 million" of long-term debt issuance as "refinancing" is specious, and the testimony fails to clarify that the *total* short and long-term debt financing of UPPCO prior to BBIP's "refinancing" was only \$68.9 million or that the principal reason the rebalance was required resulted from BBIP's *voluntary* ADIT adjustment election which required (or allowed depending upon perspective) BBIP to increase equity. This, in turn, caused (or enabled depending upon perspective) an 81% increase in the utility's debt. If BBIP purchased UPPCO as a stock transaction for tax purposes at the January 2014 announced purchase price no radical changes in debt and equity structure to maintain debt-to-equity ratios would have been necessary. The MPSC order (U-17546) approving the transaction didn't contemplate an ADIT transaction or a complete reconstruction of the UPPCO's underlying financial structure. The significant new regulatory asset account created from the ADIT accounting (that did not represent any new utility property, plant or equipment) was added and a large tax deferred liability was eliminated creating a balance sheet gap which had to be closed. Therefore, the additional debt UPPCO now carries might be more accurately characterized as \$39.1 million of *additional* debt issued in order to help finance the creation of a new regulatory account that resulted from the voluntary BBIP ADIT election *in conjunction with* a refinancing of the original \$68.9 million of pre-sale UPPCO total debt rather than a "refinancing of *this* \$108 million" which leaves the impression that UPPCO was carrying \$180 million in long-term debt prior to the sale to BBIP. There is no indication that the ADIT election and the consequential impacts were contemplated by the MPSC's Order approving the UPPCO sale when it developed the language in Section 2h of MPSC's Order addressing financing costs associated with the transaction.