

Modernizing utilities

June 2020



Building a better
working world



Higher education institutions are facing multi-faceted challenges

Even prior to the advent of the COVID-19 pandemic, US higher education institutions were under increasing financial pressure driven by declining enrollments, increasing operational costs, aging campus infrastructure and growing institutional debt. Forward-looking universities responded to these pressures in part by leveraging their physical capital. In doing so, they generated alternative revenue sources to lower their tuition dependency and identify better ways to attract and serve their students. For higher education institutions and university health care systems that were not as forward looking, the COVID-19 pandemic and associated economic disruptions have accelerated this financial strain, exacerbating institutional need for alternative revenue solutions that can help them navigate this period of uncertainty. Going forward, institutions must move quickly and implement changes decisively to reduce risk, improve outcomes, and keep both students and faculty safe with limited resources.

The convergence of climate change urgency and financial pressure

The urgency of climate change, which has recently taken a backseat to COVID-19 discussions, remains at the forefront of discussions on many higher education campuses. Many students expect their institutions to demonstrate leadership on this issue, while senior leaders have concerns encompassing both carbon reduction and the resilience and reliability of their utility systems. Indeed, more than 600 college presidents and institutions have committed to making climate change a priority in operations, education and research.¹

Considering university operations themselves, a significant number of institutions need to engage seriously with the sustainability commitments they have made to realize both student stakeholder and financial benefits. However, leadership is faced with a contrasting landscape of aged, inefficient (and increasingly unreliable) central utility systems whose transformation into modern, efficient and low-carbon solutions would require substantial capital investment and operational expertise at a time when those resources are increasingly limited. COVID-19 has further complicated these decisions because institutional leaders are the most financially constrained they have been in a generation.

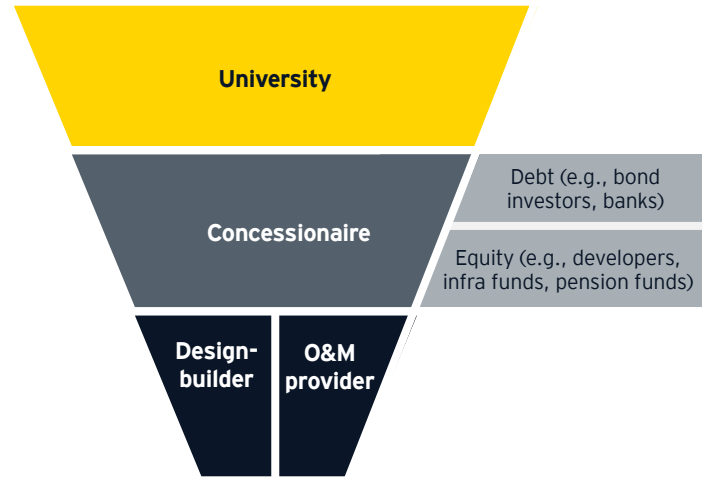


¹ American College & University Presidents' Climate Commitment.

Public-private partnerships can help

While by no means a panacea, public-private partnerships (P3s) have recently emerged in US higher education as an effective tool to facilitate the transformation of campus energy systems. P3 delivery models come in many shapes and sizes, but, by and large, they embed private financing within long-term (40 to 50 years) performance-based infrastructure and service transformation contracts. The private sector becomes responsible for the design, construction, financing, operations and maintenance of the central utility system in return for a monthly fee from the university, which the private sector uses to pay operating costs, repay financing and earn profit.

The value proposition of an energy P3 is to facilitate service transformation by drawing on private sector resources, expertise and technology, all while allocating performance risk accordingly and avoiding traditional higher education debt sources. In our experience, P3 transactions are motivated by three primary drivers:



Key transaction drivers

Performance-based drivers



In simplistic terms, campus energy provision becomes a service, thereby securing predictable energy costs over the contract term, transferring key risks of performance and availability to the private sector, and securing a whole life asset management approach that safeguards the quality of the asset over time and eliminates deferred maintenance liabilities to the university.

Service transformation drivers



Access to specialist private sector capital, resources and expertise allow institutions to transform energy systems to meet modernization, sustainability, carbon neutrality and resilience-based needs. At the core, many institutions of higher education are not specialists in the development of modern, low-carbon energy generation, so transferring responsibility to qualified private sector participants allows them to effectively and efficiently manage this transformation.

Financial drivers



The P3 may also create value in terms of energy cost savings or additional revenue sources that can be realized by the university, either through reduced energy long-term costs over time, as an up-front monetization payment used to enhance the university's financial position, or some combination of the two. Additionally, the university may realize value by using the utility fee as a financing tool. For example, it can receive a monetization payment in return for committing to higher utility payment indexation over the term of the transaction.

P3s and asset monetization

P3 projects have traditionally focused on new-build (greenfield) assets, such as the recent and ongoing utility P3 projects at the University of North Dakota and Dartmouth College. Brownfield projects, like those at The Ohio State University and Duquesne University, are projects involving the transfer of existing assets. P3 projects have also included the receipt of a monetization payment by the university, payable by the P3 private counterparty.

A monetization payment becomes possible where capital and operating budgets committed to the private sector under the P3 agreement create additional financing capacity for the private sector. This is then returned to the university via a monetization payment. This financing capacity may in turn be created through a combination of the following:

- ▶ Anticipated operating cost savings arising from modernization
- ▶ Future third-party revenues that may be captured by the private sector
- ▶ Financial structuring that escalates utility costs over time starting from current budget levels, facilitating a larger monetization payment

The more than \$1b monetization payments seen in The Ohio State University transaction, and more recently in the University of Iowa transaction, are reflective of this approach. At a smaller scale (\$100m monetization payment), the Duquesne University energy P3 also embodied elements of this approach.

The value of a monetization payment to an institution depends fundamentally on the use to which such funds will be deployed, the return on investment that these funds will earn, and the risks that the institution will bear in committing to an effectively fixed payment obligation to the P3 counterparty, where corresponding investment returns are uncertain. Colleges and universities to date have adopted balanced strategies in terms of reinvestment into core academic functions and university endowments, in the latter case, seeking to benefit from historically low costs of private finance.

Notwithstanding, these transactions have been viewed largely as credit neutral by rating agencies – up-front liquidity benefits offset by long-dated contractual obligations. However, the commentary from Moody’s on the Duquesne University transaction highlights the range of ancillary benefits to the University in terms of operational capacity, expertise, improved efficiency and resilience benefits.

A tale of two universities

Overview

Value proposition

Monetization payment

	University of Iowa (UI) ²	Duquesne University of the Holy Spirit
Overview	UI entered into a 50-year contract with ENGIE and Meridiam, which reached financial close earlier in 2020. UI staff transfer to ENGIE, but UI retains ownership of the utility system and pays an annual fee to ENGIE to manage the heating, cooling, water and electricity system.	Duquesne University sold its central utility system to Clearway Energy in May 2019, and through a 40-year Energy Services Agreement, purchases back energy (steam, cooling and electricity) services. Duquesne staff transfer to Clearway, and Clearway owns the central utility plant.
Value proposition	<ul style="list-style-type: none"> ▶ Transform the utility system so that UI meets the goal of being coal-free by 2025 at the latest as part of a wider low-carbon transformation ▶ Invest up-front monetization sum in an endowment – the earnings from the endowment will support strategic university initiatives and will in part be used to offset the incremental costs of the energy system 	<ul style="list-style-type: none"> ▶ Monetize excess steam capacity, by connecting the plant to an adjacent steam loop and selling steam ▶ Transfer operations and performance risk to the private sector, increasing operational resilience and allowing management to focus on core mission ▶ Release capital to further the university’s core academic mission
Monetization payment	\$1.16b	\$100m
	Ernst & Young LLP served a transaction tax advisor to UI.	Ernst & Young LLP served as financial advisor to Duquesne University.

² Daily Iowan 21 October 2019 / University of Iowa, Path Forward/the Gazette, 3 December 2019. Climate Commitment.



5 key commercial considerations

A successful transaction requires the appropriate project foundations to be in place. Our experience suggests the following five commercial critical success factors.

- 1 Establish key priorities**

Successful transactions have a clear sense of purpose and are able to reconcile key objectives into a cohesive project vision.
- 2 Engage with your stakeholders**

Universities have a significant number of stakeholders (not least utility staff) with a range of perspectives on any transaction involving the sale or concession of university assets. Bringing key stakeholders with you is crucial to transaction success.
- 3 Understand the project financial envelope, and associated risks and opportunities**

Energy P3s are long-term, largely fixed payment commitments and precedent projects have relied in part on an assumed return on invested monetization receipts in making the economic case for the transaction. Equally, the size of the monetization payment is often substantially connected to the university's payment obligations, so it is important to form an early view as to what may be achievable and appropriate and update this regularly to reflect evolving market conditions.
- 4 Establish financial reporting requirements and the preconditions of efficient tax treatment up front**

These can inform contract structure and balance of risk allocation, particularly if an off-balance sheet accounting treatment is desired. In complex transactions such as these, there are numerous tax issues to be addressed by both the private concessionaire and the university. These include determining tax ownership and tax attributes of the assets involved, as well as mitigation of unrelated business income tax risks.
- 5 Run an effective, disciplined process to drive value through to financial close**

This may be in the form of a well-structured competitive process, or through a disciplined bilateral negotiation where appropriate.

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Stephen leads Ernst & Young Infrastructure Advisors' energy and environmental infrastructure business and has more than 17 years of experience in advising owners and developers on infrastructure projects in the energy and water sectors. He has a strong track record in procurement, financial and commercial structuring, utility procurement strategies, and project finance both in the US and globally.

Stephen is engagement lead on EY university utility monetization and outsourcing projects and more widely advises both governments and corporates on strategy and transactions associated with climate change adaptation and mitigation. He coordinates delivery of a range of EY services to support strategic energy management across a range of sectors.

Stephen is an MSRB Municipal Advisor Representative, Chartered Accountant of England & Wales, and has a BA from Christ's College, Cambridge University.



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Since rejoining EY-Parthenon in 2009, Kasia has focused on education sector engagements in both K-12 and higher education. Her higher education engagements have included strategic planning, governance and organization structure design, revenue-generating strategies (online strategies, program development, alternative revenues), academic outcome improvement strategies, operational efficiency improvement strategies, and mergers and acquisitions support (target identification, due diligence, programmatic and financial analysis, negotiation support, and integration support).

She previously worked for six years in higher education as Chief of Staff to three Harvard University presidents (2003 to 2009). In this role, she oversaw the operations of seven units reporting to the president's office and was responsible for driving strategic initiatives university-wide on behalf of the president and provost. Kasia received her undergraduate degree from Harvard University and her MBA from Harvard Business School.



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Bob leads our national Higher Education Tax practice and is the firm's leading resource with international tax and compliance matters for colleges and universities. Most recently, he led the higher education practice at High Street Partners and was previously the Director of Global Business Compliance at Harvard University.

Bob began his career at Ernst & Young LLP and has spent several years working abroad as a financial executive in multiple countries, returning to the firm in 2014. He has been invited to speak at numerous higher education conferences on the topic of global tax compliance, including NACUBO, NCURA, NACUA, URMIA, Forum on Education Abroad, AIEA, NAFSA and others.

Bob is a certified public accountant and has assisted more than 100 universities with establishing global support structure and maintaining ongoing compliance.



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