

## Scope and Requirements

### 1. Background

As part of a long-term utility planning process, West Virginia University (“University”, “we” or “us”) is commencing a solicitation process, anticipated to occur in three (3) phases as more fully described in the Rules and Guidelines to this solicitation, for a third party developer and operator (“Energy Partner”) to design, construct, finance, operate and maintain one or more plants (collectively, “Steam Plant”) which will provide steam to our Morgantown, West Virginia campus (“Campus”) (the “Project”). Ensuring a long-term, reliable, safe, efficient and cost-effective supply of steam to the University’s Campus is our most immediate concern and objective of this Project.

The University’s steam is currently supplied by a facility and distribution system owned, operated and maintained by a third-party provider. The University’s contract with this third-party provider is set to expire in 2027 and the University has commenced this solicitation process to modernize its steam system for improved efficiency and reliability. Further background information on the University and its current steam system is provided in [Appendix A](#) attached hereto.

As part of this Project, the University has engaged the following companies and will be representatives of the University throughout the solicitation and contracting process: (1) Affiliated Engineers, Inc. (“AEI”) as independent engineer; and (2) Jones Day as legal counsel. In addition, the University is currently undergoing a procurement process to engage a financial advisor who will also be advising and representing the University.

The relationship with the selected Energy Partner will be structured in the most advantageous way to meet University objectives. The University envisions a public/private partnership in the form of a design-build-finance-operate-maintain agreement (“Project Agreement”), but is open to discussion with Qualifiers (as defined below) regarding alternative technical and transactional structures for this Project that achieve the University’s overall objectives and welcomes Qualifiers to include proposals for such alternatives in their Statements of Qualifications (“SOQs”).

### 2. Objectives

The University in phase one of this solicitation is issuing this RFQ to solicit SOQs for the purpose of identifying a shortlist of highly qualified potential Energy Partners (“Qualifiers”) that demonstrate the technical, financial and operational experience and capacity required to deliver the Project pursuant to the terms of the Project Agreement.

The University’s key transaction objectives include:

- Engaging with Qualifiers to determine and execute the most financially efficient, technical and transactional Project structure;
- Achieving completion of any applicable infrastructure construction by 2027 to ensure no interruption in the generation and service of steam to the Campus;
- Completing the Project with efficient delivery pricing that encompasses operations and maintenance and lifecycle cost savings;
- Furthering the University’s efforts in implementing energy efficiency and cost saving measures, where relevant and applicable;
- Enabling the University to remain competitive among national institutions with the Project’s ability to implement technological advances in the future;

- Partnering with a market-leading Energy Partner with a track record of efficiency, reliability, safety, responsiveness and accountability; and
- Leveraging the selected Energy Partner's best practices and innovations.

### **3. Intent and Scope**

#### **3.1. Anticipated Project Structure**

If the University selects an Energy Partner, the University anticipates entering into the Project Agreement with the Energy Partner for the design, development, construction, delivery, operation and maintenance of the Project. The Project Agreement is expected to have a term of approximately 25-35 years following financial close and will include, among other provisions standard with such transactions, the obligations of the University and selected Energy Partner in connection with the development, design, construction, financing, operation and maintenance of the Steam Plant. Further details regarding the terms of the Project Agreement will be released in phase three of this solicitation with the Request for Proposals ("RFP"), as described in more detail in the Rules and Guidelines.

The technical and transactional structure of the Project as detailed in this RFQ reflects the University's anticipated Project scope and structure as of the date of this RFQ. The University reserves the right to modify the anticipated scope and structure of the Project based on its continued analysis of the technical, financial and other considerations of the Project, and the University will communicate any such modifications or may change the structure following selection of the Qualified Respondents as defined in the Rules and Guidelines for this RFQ. In furtherance of the Project objectives, the University welcomes Qualifiers to include proposals for potential changes to the Project terms, scope and structure in its SOQ.

As currently envisioned, the Energy Partner is expected to be solely responsible for providing all necessary financing for the Project, whether through debt, equity, other financial products or any combination thereof. All proposed financing structures must be without recourse to the University. The University expects all or a substantial portion of the capital to be financed through debt and equity provided by the Energy Partner, although the University retains the right to provide funding for certain elements of the Project. Further details regarding the financing scope shall be set forth in the RFP in phase three of this solicitation.

As currently envisioned, upon completion of the Project, the Energy Partner will be compensated via availability payments from the University commencing as project elements are completed through the end of the term of the Project Agreement. The availability payments are anticipated to be substantially fixed at financial close, with adjustments for inflation, pass-through of commodity costs, and other limited circumstances. The University retains the right to offer milestone payments which will be clarified in the RFP. A customary performance-based deduction regime and risk sharing will be included in the Project Agreement associated with the Steam Plant. The University expects to achieve cost savings versus its internal projected available resources for the Project and may elect to receive those savings through an upfront payment from the Energy Partner to the University, and/or a lower ongoing post-construction reduction in availability payments from the University to the Energy Partner so as to allow the University to share in the cost savings generated by the Project over time. Further details regarding the compensation structure shall be set forth in the RFP in phase three of this solicitation.

#### **3.2. Project Scope of Work**

The Energy Partner's scope will include the design, construction, financing, operation and maintenance of the Steam Plant. The Steam Plant shall deliver 100% of the Campus steam demand

necessary for the continuous support of Campus operations. The current steam requirements of the Campus are described further in Appendix A attached hereto and the University shall provide further technical requirements and guidelines in the RFP (the “Technical Requirements”). The Energy Partner will (x) design and construct the Steam Plant and any new connections and tunnel infrastructure, as determined to be required, in accordance with the Technical Requirements and all applicable federal, state and local laws, (y) connect the Steam Plant to the University’s existing piping and tunnel infrastructure and (z) operate and maintain the Steam Plant in accordance with the Project Agreement and all applicable federal, state and local laws throughout the term of the Project Agreement. The Energy Partner shall provide all necessary financing for the Project, subject to the University’s right to provide funding for certain elements of the Project in its sole discretion. The current anticipated sites for the Steam Plant are depicted in Appendix A attached hereto, however, the University is open to additional or substitute sites.

For the avoidance of doubt, the current Project scope of work does not include the lease, sale or monetization of any existing University utility facilities and the Energy Partner would not have any obligation with respect to the steam plant currently serving the Campus. As depicted in Appendix A, portions of the University’s current steam distribution infrastructure are owned and operated by a third-party provider, and portions are owned and operated by the University. During the RFP process in phase three of this solicitation, the University may consider options which allow operation and maintenance of the University-owned portions of the steam distribution infrastructure.

### 3.3. Interaction with other Government Agencies

The Energy Partner will actively coordinate and/or lead the work with relevant government agencies and key stakeholders during all phases of the Project and the University shall cooperate and assist the Energy Partner with such efforts. The RFP issued in phase three of this solicitation will provide further details on the Energy Partner’s and University’s obligations with respect to such government agencies and stakeholders.

## 4. Anticipated Procurement Timeline

RFQ publication	October 14, 2022
Deadline to post questions to Q&A Board	October 21, 2022
SOQs due	November 18, 2022
Notification of Qualification	December 2, 2022
Request for Indication (“RFI”) publication	December 22, 2022
Response to RFI due	February 2, 2023
Request for Proposals (“RFP”) publication	April 14, 2023
Response to RFP due	July 28, 2023
Commercial Close	August 2023
Financial Close	September 2023

## 5. SOQ Requirements

*Qualifiers must provide responses to the following questions. Please use this numbering structure, provide answers in Word or PDF format and upload your SOQ to the Supplier Attachments tab before submitting.*

1. General
  - 1.1. Provide Qualifier’s name

- 1.2. Provide a single point-of-contact for all future communication between the University or its advisors and the Qualifier. Please identify the point of contact's name, phone number and email address
- 1.3. Qualifier's background (locations, number of employees, etc.)

## 2. Qualifications & Experience

### 2.1. Development and Construction Capability. (not to exceed 10 pages).

*The evaluation of Qualifier's development and construction capability will consider the following areas of expertise:*

- Previous experience of the Qualifier with the development, construction and delivery of steam plants or similar plants, including the Qualifier's experience with (i) similar utility infrastructure, (ii) institutions of higher education, (iii) continuous energy supply to research institutions, (iv) track record of cost and schedule compliance, (v) general development and construction experience and expertise, and (vi) past performances, including experience with providing system availability, reliability and resiliency, among other criteria;
- Expertise and capability of the Qualifier with the development, construction, commissioning, start-up and performance testing of newly constructed steam plants;
- Expertise and capability of the Qualifier with the coordination of connecting newly constructed energy plants with existing utilities and within a higher education setting;
- Track record of safety and security and capability to abide by all applicable health and safety standards during construction;
- Capability to procure required contractor permits and professional licenses, to the extent not already procured;
- Expertise and capability to manage construction risk and complex constructability issues, including minimizing interruptions, both generally and in a higher education setting; and
- Prior experience and track record in developing and constructing infrastructure in a higher education setting and development of a long-term partnership with related higher education institutions.

### 2.2. Design Capability. (not to exceed 5 pages)

*The evaluation of Qualifier's design capability will consider the following areas of expertise:*

- Previous experience of the Qualifier with the design of steam plants, including the Qualifier's experience with (i) similar utility infrastructure, (ii) institutions of higher education, (iii) general design experience and expertise, and (iv) past performances, including experience with designing projects to provide system availability, reliability, safety, and resiliency, among other criteria;
- Experience with the application of applicable laws, codes and standards within the design of steam plants and other similar utility projects, including associated equipment, network design and installation; and

### 2.3. Operational and Management Capability. (not to exceed 10 pages)

*The evaluation of Qualifier's operational and management capability will consider the following areas of expertise:*

- Previous experience of the Qualifier with the operation and management of steam plants, including the Qualifier's experience with (i) similar utility infrastructure, (ii) institutions of higher education, (iii) track record of cost and schedule compliance, (iv) general operations and maintenance experience and expertise, and (v) past performances, including experience with providing system availability, reliability, safety, and resiliency, among other criteria;
- Expertise and capability of the Qualifier with the operations and maintenance of newly constructed steam plants;
- Track record of reliability and customer service, including demonstrated performance against contracted service levels, performance standards and/or key performance indicators;
- Track record of safety and security and capability to abide by all applicable health and safety standards during operation;
- Capability to procure and maintain required professional licenses, to the extent not already procured;
- Capability to plan for and execute multi-year lifecycle replacement and service management and monitoring plans for steam plants and other utility infrastructure, particularly in a higher education setting;
- Capability to develop and execute emergency response plans; and
- Prior experience and track record in operating and maintaining infrastructure in a higher education setting and development of a long-term partnership with related higher education institutions.

2.4. Financial Capability. (not to exceed 3 pages)

*The evaluation of Qualifier's financial capability will consider the following areas of expertise:*

- Ability to undertake the cost of design, development and construction of the Steam Plant;
- Ability to undertake any additional required capital expenditures throughout the term of the Project Agreement; and
- Ability to raise any appropriate financing.

2.5. Comparable Projects. (not to exceed 3 pages)

- Provide a list of comparable projects in which the Qualifier has participated and specify how these relate to the Project.

3. Team and Organization Structure. (not to exceed 10 pages)

- 3.1. Describe the strategic rationale and objective for pursuing the Project, demonstrating the Qualifier's understanding of the University's goals and the scope of work for the Project.
- 3.2. Describe the Qualifier's organizational culture and the Qualifier's anticipated relationship with the University, as well as best practices for aligning goals.
- 3.3. Outline the roles of the key personnel of the Qualifier.
- 3.4. Identify the entity or entities that will perform each of the (a) development, (b) design, (c) construction, (d) operation and (e) maintenance of the Steam Plant and the relationship to the Qualifier.
- 3.5. Identify the firms and individuals who are expected to act as legal, financial, or other advisors for the Qualifier, to the extent known.

4. References

- 4.1. Please provide a list of three to five references from relevant clients. Universities of similar size/structure are preferred. University will be looking for applicability of references to the project scope of work and a cultural fit with WVU.
- 4.2. For each reference, provide a brief summary describing the work done for, and relationship with, such reference.

5. Alternative Proposals. (optional) (not to exceed 10 pages)

- 5.1. To the extent a Qualifier believes that an alternative technical proposal, transactional framework or financial structure from the ones described herein would benefit the University, please provide a description of such proposed alternative and the reason it would be beneficial to the University.

## **APPENDIX A – Background Information**

### **About West Virginia University**

As a land-grant institution, West Virginia University's faculty, staff and students are committed to creating a diverse and inclusive culture that advances education, healthcare and prosperity for all by providing access and opportunity; by advancing high-impact research; and by leading transformation in West Virginia and the world through local, state and global engagement.

In 1862, the U.S. Congress passed, and President Abraham Lincoln signed the first Land-Grant Act (also known as the Morrill Act for its sponsor, Rep. Justin Morrill of Vermont).

On Oct. 3, 1863, the West Virginia Legislature voted to accept a grant of land totaling 150,000 acres from the federal government. Funds from the sale of this land were used to establish West Virginia University in 1867.

West Virginia University is proud of its history as a land-grant university and remains dedicated to its mission of promoting access to higher education and applying research to meet the needs of West Virginians.

West Virginia University is an R1 Research University, as classified by the Carnegie Foundation for the Advancement of Teaching. In fiscal year 2021, West Virginia University received a record-shattering \$203 million in external funding for research and other sponsored programs.

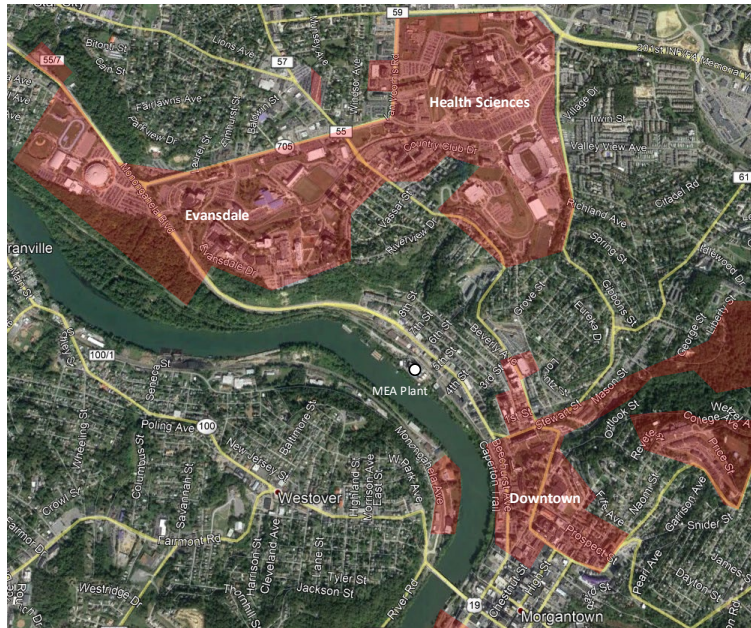
West Virginia University's main campus is located in Morgantown, West Virginia, which has a population of 30,293. West Virginia also has divisional campuses in Keyser (WVU Potomac State College) and Beckley (WVU Tech), West Virginia. Additionally, West Virginia University's Extension Service resides in each of the state's 55 counties. This Project is focused on the Morgantown campus.

West Virginia University is home to more than 6,000 full- and part-time faculty, staff and graduate assistants. The University's 2021 fall enrollment for students was more than 28,000. Students at the Morgantown campus come from 112 nations, 49 U.S. states (plus Washington, D.C.) and all 55 West Virginia counties.

Additional information about West Virginia University is available at [go.wvu.edu](http://go.wvu.edu).

## West Virginia University's Morgantown Campus

West Virginia University's Morgantown campus includes 245 buildings (11 on the National Register of Historic Places) across 1,892 acres.



A detailed map is available at [go.wvu.edu/campus-map](https://go.wvu.edu/campus-map).

The Morgantown campus is divided into three distinct areas — each with their own unique characteristics:

- **Downtown** – The Downtown campus was established in 1867 and is home to West Virginia University's oldest buildings, as well as the University's largest library and the Mountainlair student union. Most undergraduate students take introductory classes on the Downtown campus, and approximately 3,300 students live in residence halls and apartments in the area.
- **Evansdale** – The Evansdale campus is home to several labs, classrooms, studios and greenhouses, as well as the Student Recreation Center and the WVU Coliseum. More than 2,700 students call the Evansdale campus home, with nearly 2,000 living in the four towers that make up the Evansdale Residential Complex (Towers).
- **Health Sciences** – The Health Sciences campus includes multiple research labs and health care centers where patients from across the state and region seek specialized care and where tomorrow's health professionals pursue their chosen fields and evaluate their first patients. Nearby Milan Puskar Stadium hosts more than 60,000 fans for Mountaineer football, transforming the area into the state's third-largest city on game days.

## West Virginia University's Overall Energy Profile

West Virginia University's Morgantown campus uses a full profile of utility sources to support its mission, including:



- Electricity from FirstEnergy.
- Steam from Vicinity Energy, which owns and operates Morgantown Energy Associates (“MEA”).
- Natural gas from Dominion Energy.
- Domestic water from the local utility (Morganton Utility Board).

The University also produces chilled water internally on campus through individual building chillers and central chiller plants using both electric and steam absorption chillers.

West Virginia University’s annual utility consumption includes:

- Approximately 180,000,000 kWh electricity.
- Approximately 680,000 MLB of steam.
- Approximately 170,000 mcf of natural gas.
- Approximately 250,000 kgal of domestic water.

Throughout an average year, West Virginia University spends more than \$25 million with third parties on utilities, which includes approximately \$12-\$15 million on steam. Additionally, West Virginia University manages and maintains its owned steam distribution systems through the University’s Facilities Management team. West Virginia University’s system maintenance is currently performed through its general zone maintenance shops, rather than through a dedicated team for steam.

### **West Virginia University’s Current Steam Supply Overview**

West Virginia University currently contracts with a third-party provider (Vicinity Energy) to deliver steam to campus. Vicinity Energy owns and operates MEA.

The University’s current agreement with Vicinity Energy expires in 2027. As such, determining and implementing an appropriate ongoing steam solution by 2027 is a priority for West Virginia University.

Steam currently is supplied to the University from the Morgantown Energy Facility, which is owned and operated by MEA. The facility produces steam, which is sold to West Virginia University and the West Virginia University Medical Center.

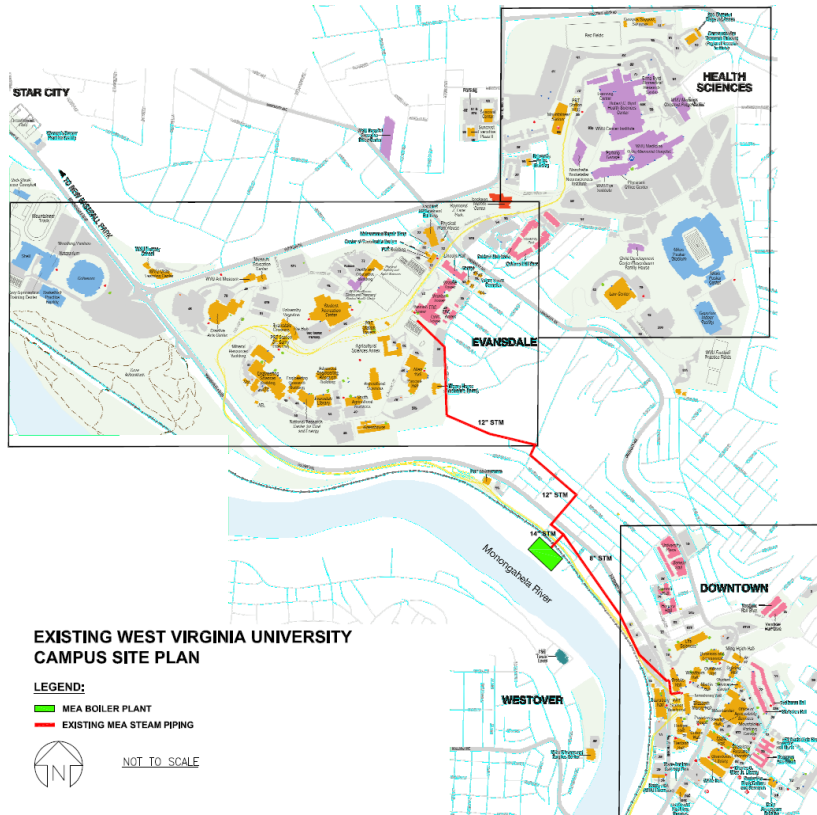
MEA has informed the University that the Morgantown Energy Facility also may provide power in the future.

The Morgantown Energy Facility currently generates steam at 250 psig (superheated to 500 F), which is delivered to West Virginia University at five locations (Downtown, Evansdale, Life Sciences, Towers and the Medical Center).<sup>1</sup> The facility (see Figure 1) is located between the Downtown and Evansdale campuses and serves 49 buildings on the three campuses.

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<sup>1</sup> **NTD:** These last two are not included in the description of campuses above.  
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Figure 1: Existing Morgantown Energy Facility Location



A 14-inch steam line and two 6-inch condensate lines exit the Morgantown Energy Facility and split shortly thereafter into an 8-inch steam / 6-inch condensate line serving Downtown and Life Sciences and a 12-inch steam / 6-inch condensate line serving Evansdale, Towers and the Medical Center. Currently, approximately 64% of the system steam generated is returned to the boiler plant as low pressure condensate. See the diagrams below to understand the approximate locations of steam lines as well as their current owner/operator/maintainer.

Figure 2: Existing Steam Lines - WVU Downtown Campus

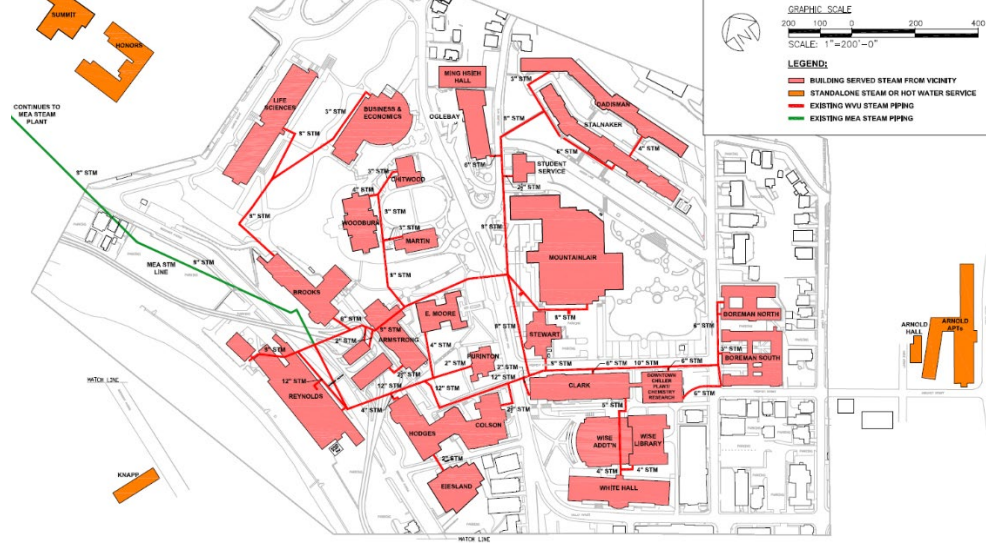


Figure 3: Existing Steam Lines - WVU Evansdale Campus

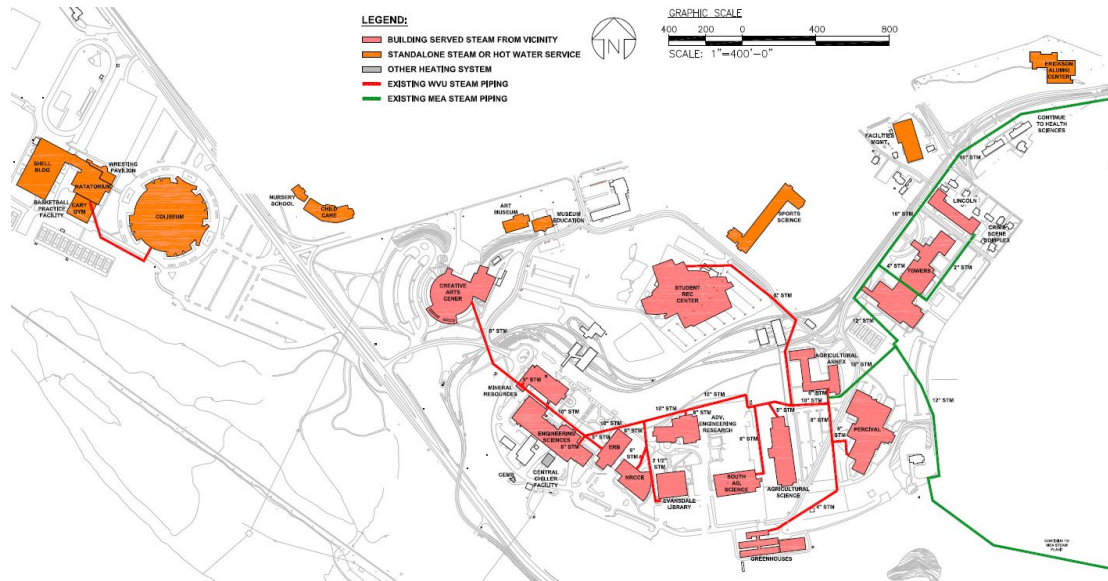
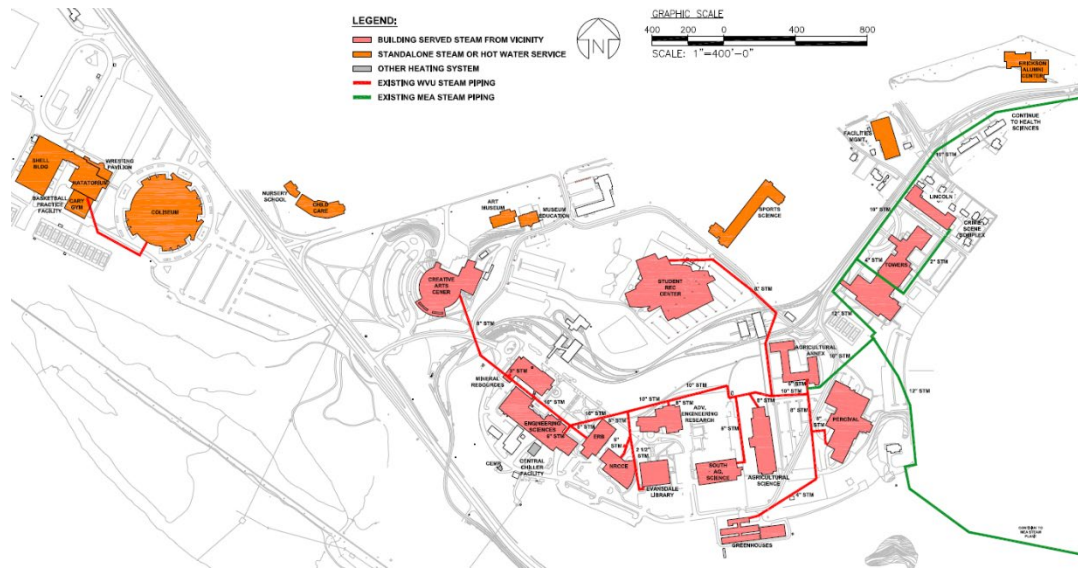


Figure 4: Existing Steam Lines - WVU Health Sciences Campus



At each delivery point, there is a steam-pressure-reducing station and flow meters on both the steam delivery and condensate return used for billing. The steam-delivery requirements per the steam purchase agreement between West Virginia University and MEA are presented in the following table:

**West Virginia University Steam Requirements**

	Downtown	Evansdale	Life Sciences	Towers	Medical Center	Total
Delivery Pressure	135-145 psig	135-145 psig	135-145 psig	13-15 psig	100-110 psig	Varies
Delivery Temperature	435-445°F	Saturated	435-445°F	Saturated	Saturated	Varies
Design Flow Rate	80,000 lb/hr	52,000 lb/hr	5,000 lb/hr	18,000 lb/hr	75,000 lb/hr	225,000 lb/hr
Minimum Flow Rate	7,500 lb/hr	10,000 lb/hr	1,000 lb/hr	0 lb/hr	15,000 lb/hr	33,500 lb/hr

West Virginia University would like to consider other options for supplying steam or alternative energy to our campus. An ideal solution would:

- Efficiently, safely and reliably distribute steam to West Virginia University’s buildings.

- Minimize heat loss and downtime.
- Provide a long-term, cost-effective solution for West Virginia University’s steam and/or other utilities.
- Reduce the visual impact of MEA’s steam plant and/or West Virginia University’s future steam plant(s) on campus and within the surrounding community.
- Provide an efficient and stable source of capital for any necessary upgrades or improvements to the steam system.
- Reduce West Virginia University’s carbon footprint where practical and cost effective.

### Potential Sites for New Steam Plants

One option currently under the University’s consideration was preliminarily developed by our engineering partner, AEI. This option includes the building of two steam plants, one on the downtown campus and one on the Evansdale campus in replacement of the existing Morgantown Energy Facility. This option assumes the full replacement of steam distribution and condensate lines currently owned by third parties as shown below on Figures 6, 7 and 8. This option was designed to minimize heat loss and transport and to increase condensate return. Figure 5 below shows the suggested locations of the new steam plants as well as the steam piping eliminated by this option.

Figure 5: Potential Sites for New Steam Plants

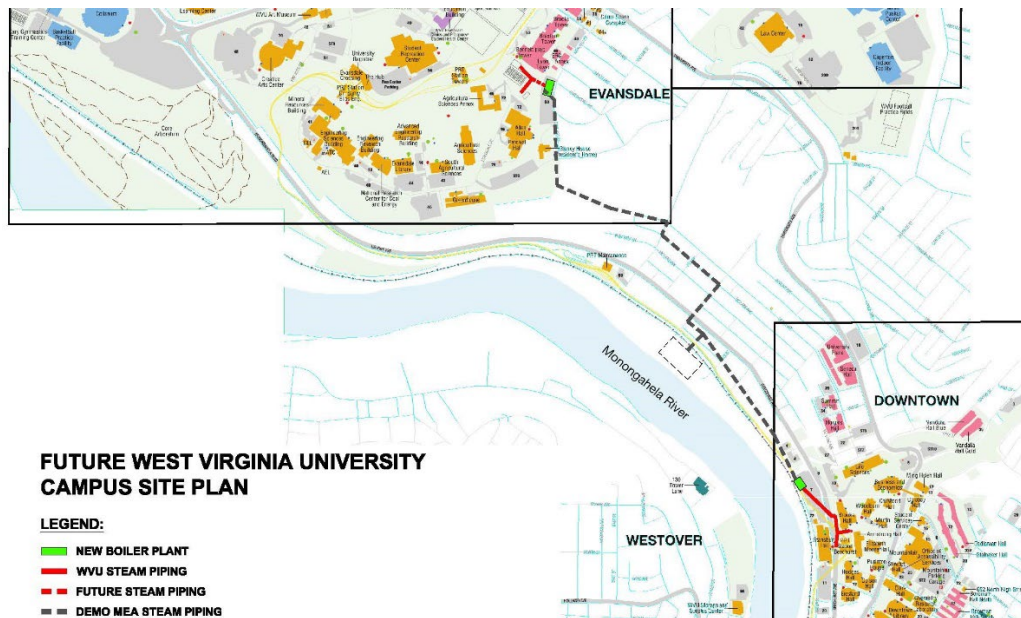




Figure 6: Future Steam Plant and Distribution Option – Downtown Campus

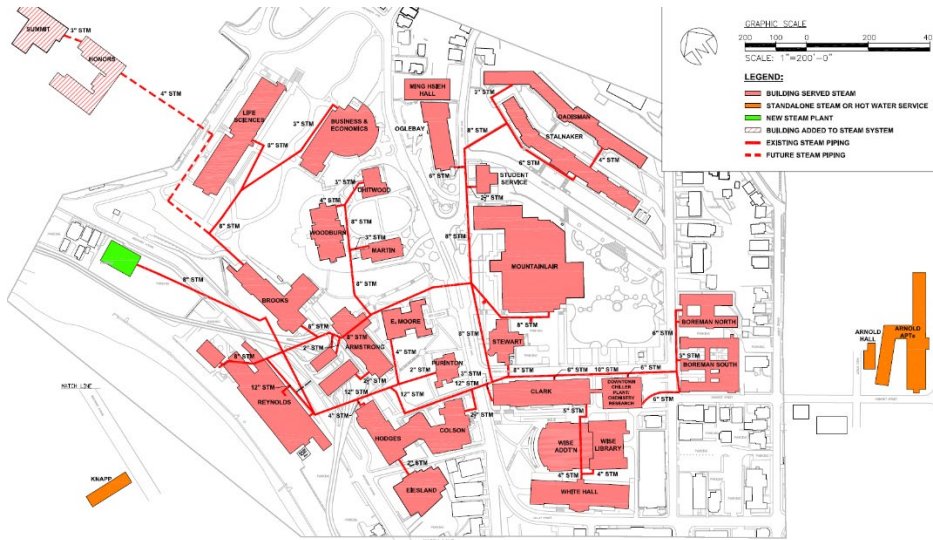


Figure 7: Future Steam Plant and Distribution Option – Evansdale Campus

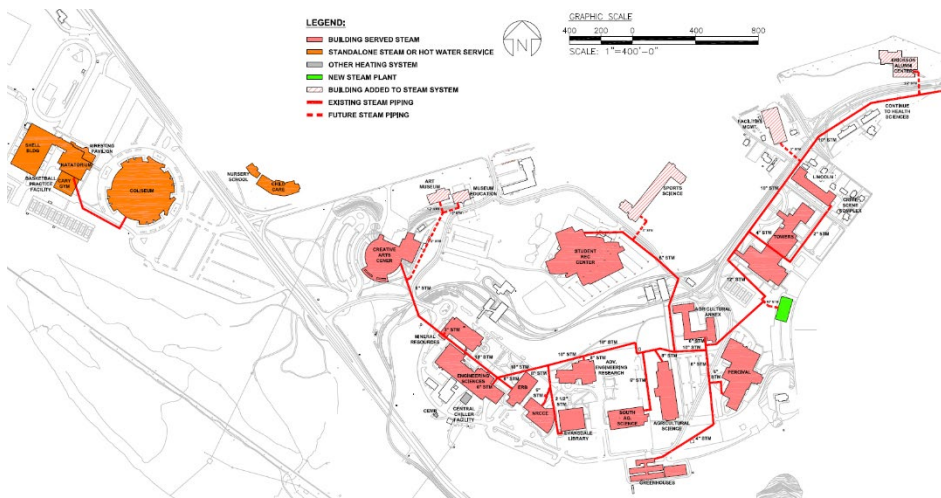


Figure 8: Future Steam Plant and Distribution Option – Health Sciences Campus

