



**GREEN PRACTICES COMMISSION  
VIA VIDEOCONFERENCE  
Thursday, February 10, 2022  
5:30 p.m. – 7:00 p.m.**

**IMPORTANT NOTICE REGARDING  
PUBLIC ACCESS & PARTICIPATION**

On March 20, 2020, City Manager Gregory Rose declared a State of Emergency for the City of University City due to the COVID-19 Pandemic. Due to the ongoing efforts to limit the spread of the COVID-19 virus, the February 10, 2022 meeting will be conducted via videoconference.

**Observe and/or Listen to the Meeting** (your options to join the meeting are below):

**Webinar** via the link below:

<https://us02web.zoom.us/j/87942185364?pwd=bUszRzgrMUVLOWVWSGxGbGJxaHQ4UT09>

Passcode: 902546

**Audio Only Call**

iPhone one-tap :

US: +13017158592,,87942185364# or +13126266799,,87942185364#

Or Telephone:

US: +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099 or +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833 or 877 853 5247 (Toll Free) or 888 788 0099 (Toll Free)

Webinar ID: 879 4218 5364

**Citizen Participation and Public Hearing Comments:**

Those who wish to provide a comment during the "Citizen Participation" portion as indicated on the agenda; may provide written comments to Sinan Alpaslan ahead of the meeting.

ALL written comments must be received **no later than 12:00 p.m. the day of the meeting**. Comments may be sent via email to: [salpaslan@ucitymo.org](mailto:salpaslan@ucitymo.org), or mailed to the City Hall – 6801 Delmar Blvd. – Attention: Sinan Alpaslan. Such comments will be provided to Board/Commission member prior to the meeting. Comments will be made a part of the official record and made accessible to the public online following the meeting.

Please note, when submitting your comments, a **name and address must be provided**. Please also note if your comment is on an agenda or non-agenda item. If a name and address are not provided, the provided comment will not be recorded in the official record.

The City apologizes for any inconvenience the meeting format change may pose to individuals, but it is extremely important that extra measures be taken to protect employees, residents, and elected officials during these challenging times.



# **A G E N D A**

## **GREEN PRACTICES COMMISSION MEETING**

**Thursday, February 10, 2022 at 5:30 – 7:00 p.m.**

**Via Zoom**

- 1. MEETING CALLED TO ORDER**
- 2. ROLL CALL**
- 3. OPENING ROUND**
- 4. APPROVAL OF MINUTES:** 11/11/2021 and 1/13/2022 draft minutes attached
- 5. SPECIAL PRESENTATION**
- 6. CITIZEN PARTICIPATION**
- 7. NEW BUSINESS**
  - a. Future in-person meetings - Discussion
- 8. OLD BUSINESS**
  - a. Veregy Energy Assessment Report, Next Steps – Discussion and Vote (See Attachment #1)
  - b. Sustainability Strategic Plan in Draft Form – Discussion proposed to begin for Biodiversity and Energy/Emissions sections (See Attachment #2)
  - c. Mosquito Control (spraying and larvicide application) – Update from Commissioner Brain.
  - d. Dark Skies Ordinance – Update from Commissioner Brain.
- 9. COUNCIL LIAISON UPDATE**
- 10. CLOSING ROUND**
- 11. ADJOURNMENT**

Please call (314) 505-8572 or email [salpaslan@ucitymo.org](mailto:salpaslan@ucitymo.org) to confirm your attendance.



## Green Practices Commission

6801 Delmar Boulevard, University City, Missouri 63130, Phone: (314) 862-6767, Fax: (314) 863-9146

### Green Practices Commission

Meeting Minutes – University City Green Practices Commission

November 11, 2021, **DRAFT**

Location: Heman Park Community Center

Attendees Present: John Solodar (Chairperson), Barbara Brain, Johnathan Stitelman, Adam Staudt, Mathew Emden, Tim Schmalz, Sinan Alpaslan (Staff Liaison), Stacy Clay (Council Liaison)

Attendees Absent: No absence.

1. Meeting called to order at 5:31pm
2. Agenda revised to move the Old Business item a. Sustainability Strategic Plan to the end of the Old Business section.
3. Opening Round: Commissioner Brain provided update on St. Louis County passing an EV charging station bill that will regulate certain development projects.
4. Approval of Minutes from October 14, 2021: Commissioner Brain moved to approve as written, seconded by Commissioner Schmalz. The motion unanimously passed.
5. No Special Presentation was scheduled.
6. No citizens were present at the meeting and no comments were received.
7. New Business
  - a. Dark Skies Ordinance – comments were made about sample dark skies ordinances, such as one from a city in Michigan where Headlands National Park is located. Impacts from non-dark skies compliant lighting improvements were listed as reflection of light off parking lots and its possible effects on birds and residents, too. Some such regulation excludes residential development but some doesn't have that exclusion and it is more rigorous. The benefits from implementation could bring cost savings, too. Tucson, AZ is one of the regions that implement regulation and host astronomical observations benefitting from that. The Commissioners also discussed the aspect of safety as it relates to lighting and commented that a glare caused by lighting can be deceiving as for its safety benefits. Some messaging for promoting the regulation was discussed and articulation for safety, not referencing prohibition of certain lighting and perhaps adding options such as motion sensing lighting were ideas that were shared. The Commissioners planned to see what other cities have for dark skies and for which type of development (residential, commercial, municipal, etc.) or do the regulations apply to all development work in a combined fashion? More updates and feedback are expected for this item at the January meeting.
8. Old Business
  - a. Geo exchange facility heating and cooling - Commissioner Emden discussed an example residential project for geo-exchange. The efficiency levels were reviewed for heating and cooling performance. Chairman Solodar mentioned the 7-year or less payback period as regulated by University City's energy efficiency Ordinance. With conventional energy purchase for operations, the reduced CO2 emissions with energy savings can be accounted for, as well.



## Green Practices Commission

6801 Delmar Boulevard, University City, Missouri 63130, Phone: (314) 862-6767, Fax: (314) 863-9146

CTS Group report doesn't have recommendations and will need further analysis to provide recommendations. Sharing of resources might be an opportunity in this area. Alpaslan explained that bringing the CTS Group representatives to the meeting in January for a discussion would be possible.

- b. Emergency Climate Change Resolution/Ordinance – an ordinance will be drafted and with that document, the discussion of this item will progress.
  - c. Mosquito Control (spraying and larvicide application) – West Nile Disease prevention is intended with the St. Louis County control program; however, spraying causes harm to other insects. There are conflicting reports on what the program can implement, whether an a-la-carte option is available or does the program work on an all or nothing basis. The Cities of Ellisville and Brentwood have dropped out of the contract and what these municipalities are currently doing for the control activity is something that the Commission is interested in finding out. Councilmember Clay commented that a communication and education campaign to reach out to the community for supporting any decision whether to leave the St. Louis County program would be beneficial. Did Brentwood complete such a campaign in their process to drop out? Another piece of evidence that the Commission would like to review is the correlation of the West Nile Virus cases to the zones within St. Louis County that are sprayed. The St. Louis County program seems to be used to protect human beings against infections from the West Nile Virus and the effectiveness of spraying against the nuisance of mosquitos would be data to track and find out. In this capacity, the Commission will explore the possibility that St. Louis County Vector Control can come to talk to the Commission at a future meeting.
  - d. CTS Energy Assessment Report – discussed above.
  - e. Sustainability Strategic Plan – in the Biodiversity section of the draft plan, a lot of the recommendations were a part of the Climate Action Plan that was in the works for drafting in University City as general findings. The specifics were not included in the scope of this plan. OneSTL framework was used as guidance and the plan was set up as a baseline. The goal is to build on that and also incorporate more local specificity. The tree inventory and Climate Action Plan can be used for developing target thresholds in the biodiversity section of the Strategic Plan. The Commission is interested in finding out if Washington University would have an available student team to help with this plan development.
9. Council Liaison Update: Councilmember Clay updated that the Council recently had a Tax Increment Financing (TIF) interest discussion and decision and the Stormwater Master Plan is in development in University City. The Climate Action Plan and the Army Corps Flood Risk Management Study could be good to factor into the plan development for stormwater.
10. Closing Round
- a. Commissioner Staudt shared that the Vision 2040 session was rescheduled. A portal is in development for surveying the community. The meetings will resume in December.
11. Adjournment 6:45pm



## Green Practices Commission

6801 Delmar Boulevard, University City, Missouri 63130, Phone: (314) 862-6767, Fax: (314) 863-9146

### Green Practices Commission

Meeting Minutes – University City Green Practices Commission

January 13, 2022, **DRAFT**

Location: Zoom

Attendees Present: John Solodar (Chairperson), Barbara Brain, Adam Staudt, Mathew Emden, Tim Schmalz, Sinan Alpaslan (Staff Liaison), Stacy Clay (Council Liaison)

Attendees Absent: Johnathan Stitelman.

1. Meeting called to order at 5:31pm
2. Opening Round: Commissioner Brain provided update on a property maintenance citation at Ms. Freese's property for vegetation and expressed her satisfaction with the note from the Assistant City Manager who rescinded the citation. Ms. Brain said that the citation was misguided and the city seemed to now be moving forward with giving inspectors greater guidance in this field of work and there will be training sessions held about this topic in the future.
3. Approval of Minutes from November 11, 2021: The minutes were not attached and the Commission directed Staff Liaison Alpaslan to bring the minutes to the next meeting for approval.
4. Special Presentation was given on the Veregy Preliminary Analysis Summary on an Energy Assessment Report. John Shaw and Ellie Blankenship representing Veregy provided the presentation. Veregy works on making municipalities more energy efficient. Future energy efficiency plan and guaranteed energy efficiency savings are provided as part of Veregy's work. The savings from projects help pay for their cost. The savings are in operations and maintenance costs and a 15-year payback period is outlined in the program. Veregy team looks at life cycle costs and manages the project under one contract. The City's approved contractors get an opportunity to bid on the project and any equipment choices of the City are incorporated into the process. The firm also utilizes grants and rebates to help pay for the project, as applicable.

Veregy looked at four buildings in their report: 1) City Hall, 2) City Hall Annex, 3) Trinity Building, and 4) Centennial Commons. The City Hall Annex and Trinity Building are currently unoccupied and under a renovation project scope of work. The energy use indices for the other buildings (occupied) (City Hall and Centennial Commons) are compared to industry standards. Ms. Blankenship went over existing conditions at these buildings. Some equipment units are coming up to the end of their useful life. Weatherization would also normally be included for buildings in the project scope. Mr. Shaw explained that the enabling legislation allows for nonenergy items to be grouped into the municipal energy project. Lighting and HVAC at Centennial Commons and City Hall will be in a narrowed-down scope for the project. According to Ms. Blankenship, bipolarization is a currently recommended option for these projects, as well as controls upgrades. The 5-yr. master plan as a result of further analysis in such a project would show when various improvements will need to occur. The Veregy representatives showed a financial summary and 15-yr. cash flow analysis. The project in University City is estimated to be \$65,000 ahead after having paid for itself in that term. The sizing of equipment for replacement is completed during the further analysis on the project. Performance measurement is conducted at the completion of one-year of service term and continues after that, if requested by the public agency. As a result of the first year's measurement Veregy applies any adjustments needed for meeting the required performance outlined by the contract. The next step in the process would be to release a Request for Qualifications / Proposals (RFQ/P) for a project.



## Green Practices Commission

6801 Delmar Boulevard, University City, Missouri 63130, Phone: (314) 862-6767, Fax: (314) 863-9146

The Commission further deliberated the Veregy proposal as for its details and proposed methodology.

Commissioner Emden provided the following recommendations:

- Utilization of enhanced commissioning by a third party representing the city and working with the contractors selected for the job. This type of a project delivery method would pay for itself and save the city a ton of money.
- Control systems selection as a method to optimize for efficiency. For Police, it will probably not be a building automation system since security may be a concern but some type of control system with the level of sensitivity best suited for the building function should be incorporated.
- Another energy savings opportunity is energy recovery through ventilation systems.

Councilmember Clay stated that the Commission's recommendations for energy efficiency and cost savings will be transmitted to City Council via staff.

5. No citizens were present at the meeting. One public comment was received and made a part of this document.
6. New Business (No items on agenda)
7. Old Business

The agenda items are not discussed at the meeting.

8. Council Liaison Update: Councilmember Clay stated that a ¼ cent sales tax will be on the April ballot. The primary purpose with it will be to support the uniformed pension fund. A third ambulance purchase may eventually be funded also from this sales tax initiative. Commissioner Brain asked about the status of the work on the property at the corner of Olive and Midland. Councilmember Clay explained that the work is being performed to bring the property up to grade so that it can be cleared off the regulated 100-yr. floodplain as a result of the applicable FEMA approval process and staff liaison Alpaslan confirmed this information.
9. Closing Round  
No additional discussion.
10. Adjournment 7:06pm



St. Louis Audubon Society  
P.O. Box 220227  
St. Louis, MO 63122  
[www.stlouisaudubon.org](http://www.stlouisaudubon.org)

January 12<sup>th</sup>, 2021

To Whom It May Concern:

My name is Dan Pearson. I am the Coordinator of St. Louis Audubon's Bring Conservation Home (BCH). BCH provides consultations and detailed written advice to improve landscapes with native plants, stormwater management techniques, and wildlife stewardship practices for the benefit of ecosystems and human communities across the St. Louis region. Using criteria developed in BCH awards one of three levels of certification – silver, gold, or platinum wildlife habitat.

I recently learned of the citation issued for Kathy Freese's gold certified BCH garden and am writing to provide information in support of her current maintenance practices.

St. Louis Audubon Society envisions an ever-growing mosaic of native plant landscapes across the St. Louis region, including even the smallest urban yard. To this end, BCH has conducted more than 1,500 site visits across the region since 2011. In University City, BCH has consulted with private landowners on 103 site visits and certified 23 urban landscapes. **University City has the 2<sup>nd</sup> highest BCH program participation** exceeded only by the City of Webster Groves.

In December 2013, the University City Council endorsed BCH through a resolution and a community partnership commitment. As a result, residents receive a 50% discounted rate to participate in BCH and University City promotes the program to its residents. In addition, the Centennial Commons Bird Garden was partially funded by St. Louis Audubon.

To ensure that BCH landscapes are attractive to humans and provide food, cover and nesting sites to birds, butterflies, and other pollinators, BCH Habitat Advisors emphasize the need for science-informed, ongoing maintenance. Rather than cutting back all vegetation and raking leaves before winter, BCH recommends "leaving the leaves" and dormant plant material until spring to maximize wildlife benefits. The seed heads of perennial wildflowers are a particularly important food source for wintering and migratory songbird populations.

University City has a weed ordinance stipulating the height of weeds and [turf] grass in Section A. Then Section B allows for the unlimited height of garden vegetation for aesthetic, wildlife, and/or soil loss benefits, with no seasonal conditions. I believe that this should relieve Kathy Freese from cutting down dormant garden plants during winter or removing a few dead tree branches that help collect leaves and provide wildlife cover.

The rewards of BCH wildlife habitats are supported by research conducted on by St. Louis University's Billiken Bee Lab include Monarch butterfly and songbird migration, pollination, predation, and even courtship behavior — all courtesy of native plants in home landscapes. BCH landscapes help reverse the population decline of many species and inspire families with nature encounters at home.

*Our mission is to create a community connection to nature through education and conservation.*



**St. Louis Audubon Society**

P.O. Box 220227

St. Louis, MO 63122

[www.stlouisaudubon.org](http://www.stlouisaudubon.org)

While supporting positive action for the environment at home and work, BCH supports a network of small nature sanctuaries intended to inspire community-wide engagement for conservation practices. BCH values University City as one of those conservation-minded communities.

Therefore, I encourage reconsidering enforcement of Kathy Freese's citation warnings.

Sincerely,

Dan Pearson  
BCH Coordinator  
[dan@stlouisaudubon.org](mailto:dan@stlouisaudubon.org)  
(314) 718-3967



To the Green Practices Commission:

My name is Nina Fogel and I am a fourth year Ph.D. student in Gerardo Camilo's Billiken Bee Lab at Saint Louis University. I study bees in residential gardens across the St. Louis region.

I have heard about Kathy Freese's citations and wanted to provide some information on bees and bee biology.

Bees are necessary for supporting us and natural systems. Bees are the primary pollinators of many wild plants and roughly one third of all the food we eat (especially fruits and vegetables) require insect pollination. Although bees pollinate our vegetables, many bees additionally rely on plants they have evolved with for millennia—plants that are native to St. Louis. Beyond environmental concerns, it is crucial we have a mix of native plants to support the home vegetable gardens that many people rely on for food security.

Bees are currently experiencing declines in both diversity (number of species) and abundance (counts of individuals) due to many factors, primarily the loss of habitat and widespread pesticide use. Agricultural areas are especially tough because of the low diversity of floral resources, the tilling of soil (many bees nest in the ground) and high levels of pesticides.

Yet, there is a wide body of scientific research that finds that bees do well in cities. In St. Louis, we have 45% of the bee diversity of the entire state. This is because cities have natural areas, parks, vacant lots, community gardens and residential gardens that support bees. My research focuses on understanding the patterns of bee diversity in residential areas. During my work I have found 87 species calling St. Louis residential native gardens home. Residential gardens may be individually small, but ones landscaped with native plants create a patchwork of resources for bees. Each additional garden strengthens the mosaic of resources and removing a patch of native plants makes it harder for bees to survive and reproduce.

The bee lifecycle is as follows: bees emerge in the spring or summer and mate. For most native bees, each female provisions her own nest (there is no queen). She may nest in the ground, a cavity (such as partially decaying woods) or create her own nest by boring out the pith of a dead flower stem. The males and females die before the end of fall. The eggs hatch and eat the pollen that their mother left for them. Before winter, the larvae become adults and they diapause (essentially hibernate) throughout winter in their nest. In the spring the bees emerge, and the cycle starts anew.

Therefore, in a native plant garden such as Kathy's there are most likely lots of bees diapausing in stems, piles of leaves and dead wood. It would be cruel to mandate that she remove her dead stems and leaves now. If you must enforce Part A of the ordinance (although Part B should exempt her yard), I would recommend that you wait until June 1<sup>st</sup> to do so. By then, the bumblebee queens overwintering in her leaf piles, the Ceratina nesting in the stems and the Augochlorini nesting in her decaying wood will have emerged. Additionally, all the other bees,

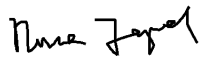
solitary wasps and other beneficial insects will have ended their diapause and be less impacted by the removal of dead plants.

If you would like to learn more about the bees that I referenced that call University City home, here is a bee guide I made: <https://tinyurl.com/stlbeeguide>. Additionally, I will be giving a talk on biodiversity in native plant gardens for the St. Louis County Library Native Landscaping series this spring. My talk, as well as all on the series, will highlight the importance of gardens such as Kathy's. You can also learn more about my work and the research of others in my lab here: [www.camilobeelab.com](http://www.camilobeelab.com).

Lastly, I have enclosed a paper here that discusses the ambiguity of lawn ordinances that I recommend the council read. The discussion section on page 10 is especially pertinent.

We need native bees and native bees are benefiting from native plant gardens like Kathy's. Therefore, I recommend that you rescind all citations or if not, at the very least pause enforcement until June 1<sup>st</sup>.

Regards,



Nina Fogel  
PhD candidate  
Saint Louis University  
(314)441-6499

**Sinan Alpaslan**

---

**From:** A John Solodar <ajsolodar@yahoo.com>  
**Sent:** Friday, January 28, 2022 3:38 PM  
**To:** Mathew Emden; Jonathon Stitelman; Adam Staudt; Barbara Brain; Tim Schmalz  
**Cc:** Stacy Clay; Sinan Alpaslan  
**Subject:** Revised Veregy Discussion

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

To all. Mat Emden was the only one who responded to my first draft of a summary of our discussion with Veregy on January 13. He gave me an excellent analysis for changes. I have incorporated his suggestions into my first draft to make this second draft. Please look this over and let me know if it looks good. When this is finished we can try to make a presentation to the person at City Hall who is responsible for looking at improvements to City Hall and Centennial Commons.

Current conditions. Much of the heating equipment at City Hall and Centennial Commons is at or beyond its expected 15 yr life and needs to be replaced. There are various exterior items, called building envelope, that need upgrading also. The building envelope is the exterior building system, made up of walls, windows, doors, roof, etc. Veregy noted windows, tuckpointing, and roof repairs. They did not include this in their recommended scope of work.

Veregy Proposal. In a simplification, Veregy's proposal is a simple one-stop setup. Hire them and they modernize the systems with no upfront costs to us. Instead, they use the savings that accumulate over fifteen years to amortize their upfront costs, and they guarantee that there will be savings to the city of about \$60,000 over the fifteen years. Veregy will incorporate the savings into our payment to them resulting in lower annual payments than there would otherwise be. Using an interest rate of 2.5% per year, the city's annual payment to Veregy will be between \$144,572 and \$160,725.

Veregy was using some very creative numbers in their proposal and it is somewhat confusing as to how all their numbers came together. For example, the "Estimated Annual Capital Cost Avoidance," which is defined as "future budgeted replacement expenditures for equipment beyond its useful life or does not meet minimum energy-efficient regulations" is \$90,000 - \$110,000. First of all, U City will still be buying new equipment, how the city pays for it may be different with Veregy, but the city would still be paying for the equipment. It is also hard to believe that U City would need to invest ~\$100,000 a year for the next 15 years. One also remembers them saying that the energy savings may not be enough to cover all of the costs, if you look closely at their slides, they estimate that U City will save \$22k on energy and \$22k on avoided maintenance, but pay Veregy over \$150k/year. Essentially, the city is paying \$90k - \$110k a year for 15 years for the equipment, installation, and basic engineering. Cost to replace the RTUs at Centennial Commons and the Annex should be less than \$80k, The heat pumps and water tower should have a useful life of 25-30 years - not 15 as they stated. The Trinity building does not currently have central air and they do not propose adding AC to this building. The more one looks at their numbers, the more they do not make sense.

It would have helped had Veregy's presenters been able to lay out how the accounting works. One nice thing about the proposal is that the city would be working with one vendor and not a large number of vendors.

Other Commission concerns. Immediately after the presentation, it became clear that some of our members were concerned that the 15 yr savings were only \$60,000 in total. There was a feeling that if Veregy is guaranteeing the savings, then they must be making a lot of money themselves and why could U City not find another way to do the project so that the city kept a lot more of the money to itself. Some wonder what the \$60,000 in savings was calculated against and still cannot be certain what is happening. We would expect they used U City's energy data to estimate energy savings, but without any equipment specifications, energy savings are only estimated with a lot of assumptions. Some of us feel that it is hard to accept Veregy's numbers at face value.

John

A John Solodar  
[ajsolodar@yahoo.com](mailto:ajsolodar@yahoo.com)

The older I get the better I was.

**REQUEST FOR QUALIFICATIONS AND PROPOSALS  
GUARANTEED ENERGY SAVINGS CONTRACT  
ISSUED BY:**

City of University City, MO  
6801 Delmar Boulevard  
University City, MO 63130

**on**

**INSERT DATE**

The City of University City, Missouri (referred to throughout this document as "City "), is requesting Qualified Providers to propose Facility Modernizations and Energy Conservation Measures (FM/ECMs) through a Guaranteed Energy Savings Contract. These proposals may include, but not be limited to, the following items: (a) the implementation of an energy audit, data collection, and other related analyses preliminary to the undertaking of Facility Modernizations and Energy Conservation Measures; (b) the evaluation and recommendation of Facility Modernizations and Energy Conservation Measures; (c) the implementation of one or more Facility Modernization and Energy Conservation Measures; and (d) the implementation of project monitoring and data collection to verify post-installation energy consumption and energy related operating costs. This Request for Qualifications and Proposals ("RFQP") is issued pursuant to Mo. Rev. Stat. §8.231.

Please provide **XX** copies of proposals. Sealed proposals will be received until **INSERT DATE AND TIME** at the following address (**NO EXTENSIONS WILL BE GRANTED**)

**City of University City, MO**  
**Attn: Sinan Alpaslan, Director of Public Works**  
**6801 Delmar Boulevard**  
**University City, MO 63130**

**The envelope should be marked as:** *RE: Request for Qualifications and Proposals for a Guaranteed Energy Savings Contract*

Any attempt to contact any other City employees or companies/agencies representing the City regarding this process will be grounds for disqualification. All questions will be submitted in writing or via an electronic media to the following contact:

**Sinan Alpaslan, PE**  
**Director of Public Works**  
**Phone: 314-505-8572**  
**Email: [salpaslan@ucitymo.org](mailto:salpaslan@ucitymo.org)**

Questions will be answered by e-mail to all respondents.

## SERVICES REQUESTED

City of University City wants to evaluate potential upgrades to the City facilities and infrastructure located in University City, MO. The City intends to upgrade outdated and obsolete building equipment and perform property improvements through the program, dependent on the savings identified, and financing. The City anticipates a reduction in annual utility costs through the implementation of this energy conservation program. The Energy Services Company (ESCO) would be expected to provide a written first party guarantee of all utility cost reductions and assist with financing for the project if needed. The City reserves the right to implement the project in separate phases. The final scope of the project shall be determined by the City and the City may choose to phase the projects. The contract life of the program is expected to not exceed fifteen (15) years.

The City will only consider proposals from respondents with demonstrated expertise with similar type projects with Municipal, State or Educational facilities.

Qualified Respondents should ensure that any recommended or proposed solutions conform to the following minimum requirements of the City:

- All systems must be in full compliance with all applicable codes. All materials and installation must be of high quality as determined by the City. All workmanship must be performed in a high-quality manner. Any proposed temperature controls must be of the open protocol type with an open communication format and fully assessable and programmable from any internet connected PC.
- Final costs shall include all anticipated costs including, but not limited to, engineering, all installation costs including provisions for prevailing wage, all warranty service costs, cost of energy verification audits and any hazardous waste disposal.

## DEFINITIONS

For purposes of this section, the following terms shall mean:

- (1) **“Energy cost savings measure”**, a training program or facility alteration designed to reduce energy consumption or operating costs.
- (2) **“Governmental unit”**, a state government agency, department, institution, college, university, technical school, legislative body or other establishment or official of the executive, judicial or legislative branches of this state authorized by law to enter into contracts, including all local political subdivisions such as counties, municipalities, public school districts or public service or special purpose districts.
- (3) **“Guaranteed energy cost savings contract”**, a contract for the implementation of one or more such measures. The contract shall provide that all payments, except obligations on termination of the contract before its expiration, are to be made over time and the energy cost savings are guaranteed to the extent necessary to make

payments for the systems. Guaranteed energy cost savings contracts shall be considered public works contracts to the extent that they provide for capital improvements to existing facilities.

- (4) **“Operational savings”**, expenses eliminated and future replacement expenditures avoided as a result of new equipment installed or services performed.
- (5) **“Qualified provider”**, a person or business experienced in the design, implementation and installation of energy cost savings measures.
- (6) **“Request for Proposals”** or **“RFP”**, a negotiated procurement.

## **DESCRIPTION OF THE PROCUREMENT PROCESS**

1. **SUBMISSION OF PROPOSALS:** All proposals responding to this RFQP must be sent with **XX** copies and must be sealed and received by the date and time set forth above to the address listed above. **NO EXTENSIONS WILL BE GRANTED.** The City will review and evaluate written proposals in response to this RFQP in accordance with the evaluation criteria set forth herein. The City may interview selected Qualified Providers.
2. **ORAL INTERVIEW** – If the City decides to have interviews, each of the selected Qualified Providers that participates in the oral interview will discuss in detail how their Company and approach will achieve the City’s goals and satisfies the evaluation criteria identified in this RFQP.
3. **SELECTION OF QUALIFIED PROVIDER** - The selection of a Qualified Provider shall be based solely on the City's evaluation of information a Qualified Provider sets forth in its written proposal and the optional oral interview subject to the evaluation criteria in this RFQP. The City shall, in its sole and absolute discretion, select the Qualified Provider that best meets the needs of the City. The City reserves the right to reject and/or accept any proposals, and will not be obligated to reimburse the Qualified Providers for any cost associated with the preparation of the proposals responsive to this RFQP.
4. **LETTER OF INTENT** - A Letter of Intent (LOI) will be issued by the City to the selected Qualified Provider upon the selection of a winning proposal by City Council. If necessary, the City will work with the selected Qualified Provider to solidify any outlying aspects of the project which the City determines will best meet the needs of the City and the community.
5. **EXECUTION OF GUARANTEED ENERGY SAVINGS CONTRACT AND FINANCING DOCUMENTS** – Upon selection and approval of the winning provider by the City Commission the Commission will negotiate and execute a Guaranteed Energy Savings Contract with the selected Qualified Provider.

## **PROPOSAL CONTENT & FORMAT**

Proposals are expected to be submitted in the format outlined in this section. The City reserves the right to eliminate from further consideration any proposal deemed to be substantially or materially unresponsive to the requests for information contained herein. The City reserves the right to reject any and all proposals and to be the sole judge of the value and merit of the proposals offered. The City will base its qualified provider selection on the following criteria:

### ***A. BUSINESS PROFILE & FINANCIAL QUALIFICATIONS***

1. Provide general information on your firm including corporate name, corporate mailing address and contact information for two principals or officers of the firm. Include any information on your parent company which you may deem as important.
2. It is required your firm be an accredited ESCO by the National Association of Energy Service Companies (NAESCO). Please provide copy of Accreditation. Include any evidence of affiliation with either the EPA or DOE.
3. Provide the number of years the business has been performing this service.
4. Bonding - Provide evidence of your firm's financial capability by showing the ability to provide a performance and payment bond for the installation of the proposed project. Bond shall protect the City Government for the installation cost of the project. The evidence shall be a letter from the bonding agent that the company normally works with and shall include a description of the current surety for the company.
5. Insurance- Indicate the level of insurance which you propose to provide for this project. Provide a listing of all coverage types and amounts including a specific statement regarding workers compensation and coverage.
6. Manufacturer Disclosure - Explain whether your company, parent company or any division thereof manufactures or maintains contractual agreements to sell or otherwise represent specific brands of facility systems or equipment.

### ***B. LOCAL RESOURCES AND PERSONNEL QUALIFICATIONS***

1. Provide general information on the office or branch office(s) which would be servicing the City including name, mailing address and contact information for main point of contacts. Include any information on your local office which you may deem as important.
2. Provide a list of Guaranteed Energy Savings Contracts completed by your Company, for 10 performance contracts from different customers, during the past 5 years. Each reference shall, at a minimum, include the scope and size of each project, project cost, guaranteed savings, and the name and telephone number of a contact person. Each reference shall, at a minimum, include the scope and size of each project, project cost, guaranteed savings, and the name and telephone number of a contact person. Please provide references of similar facilities/systems to City of University City. Show experience with projects completed while buildings are occupied.
3. Include a brief description and/or resume for each team member that you anticipate would be actively involved in the proposed project.



4. Does your firm include full time employees who are LEED Accredited Professional(s) and Professional Engineer(s) licensed in the State of Missouri?
5. Provide the amount of grants and/or rebates that your Company has applied for and received for your customers during the past five (5) years. Explain your approach to maximizing such funding sources.

**C. PROJECT MANAGEMENT PLAN**

1. Summarize the scope of services (auditing, design, construction, monitoring, operations, maintenance, training, etc.) that would be offered for this project.
2. Describe the methodology proposed for ongoing monitoring and savings verification of project performance. Specifically state whether your company would adhere to the International Performance Measurement and Verification Protocol (IPMVP).
3. Describe any specialized area of expertise or unique local capabilities your firm might have which would be relevant to a project at the City.

**D. SITE SPECIFIC APPROACH AND IMPLEMENTATION PLAN**

1. Describe typical or expected energy conservation measures (ECMs) which your firm may recommend as part of an energy performance contract at the City.
2. Describe how your firm would work with current building management and maintenance personnel in order to coordinate construction and avoid conflicts with the building's operation and use.
3. Describe your approach to the development and management of the project including flexibility and/or limitations regarding possible owner integration of other identified capital needs within ESCO projects that may or may not contain self-funding cost savings opportunities.
4. Provide a statement that all work performed under the contract shall be in accordance with all applicable federal, state, and municipal laws and regulations legally enacted as of the date the work commences and all City quality requirements listed herein.

**EVALUATION PROCESS**

Each qualified submittal will be reviewed and analyzed by the City. The City will evaluate each submittal against the guidelines set forth in this RFQP. The City reserves the right to determine, in its sole and absolute discretion, the most qualified response to this RFQP. The contract is anticipated to be awarded to the firm with the most responsive proposal which best meets the needs of the City. The criteria for making this evaluation will be based on the following scale:

Business Profile and Financial Qualifications	25%
Resources and Personal Qualifications	30%
Project Management Plan	20%
Site Specific Approach and Implementation Plan	25%
Total	100%

The City is not liable for any cost incurred by the respondent in preparing or submitting a proposal, or in preparing the contract or for any finder's fee.

# University City Sustainability Plan



2021

6801 Delmar Blvd

St. Louis, MO

63130

Phone: (314) 862 6767



# Table of Contents

<a href="#"><u>Executive Summary.....</u></a>	<a href="#"><u>3</u></a>
<a href="#"><u>Why Create a Sustainability Plan.....</u></a>	<a href="#"><u>4</u></a>
<a href="#"><u>Biodiversity.....</u></a>	<a href="#"><u>6</u></a>
<a href="#"><u>Energy &amp; Emissions.....</u></a>	<a href="#"><u>10</u></a>
<a href="#"><u>Food Access.....</u></a>	<a href="#"><u>13</u></a>
<a href="#"><u>Waste &amp; Materials Management.....</u></a>	<a href="#"><u>16</u></a>
<a href="#"><u>Healthy Transport.....</u></a>	<a href="#"><u>19</u></a>
<a href="#"><u>Water &amp; Green Infrastructure.....</u></a>	<a href="#"><u>24</u></a>

DRAFT

# Executive Summary

---

The project focused on the creation of a new sustainability plan for University City. Through research and consultation with local experts, this plan was created to reflect the updated agenda of the citizens of University City and improve upon the previous targets of the 2012 Sustainability Plan. Jenny Wendt, the liaison for the University City Green Practices Commission and senior project manager, served as an advisor, along with Washington University in St. Louis Senior Lecturer Raymond Ehrhard to the two teams of Sustainability Exchange students.

In the Fall of 2020, a team of students created the foundation and background for the proposed University City Sustainability Plan. They divided the sustainability plan into six sections: Biodiversity, Energy & Emissions, Food Access, Waste & Materials Management, Healthy Transport, and Water & Green Infrastructure. Over the course of the Fall 2020 semester, they completed the Energy & Emissions and Water & Green Infrastructure sections. Additionally, they created transition materials to assist the Spring 2021 team in completing the remaining four sections of the sustainability plan.

During the Spring 2021 semester, the four remaining sections were completed, and all findings are summarized in this final report. Each section of the sustainability plan includes two to three main targets, along with a brief explanation of how they will be met. Relevant hyperlinks to additional information and resources are included throughout.

The finalized plan will be delivered to the University City Green Practices Commission and will be reviewed before implementation.

— *Sustainability Exchange Teams*

# Why Create A Sustainability Plan?

---

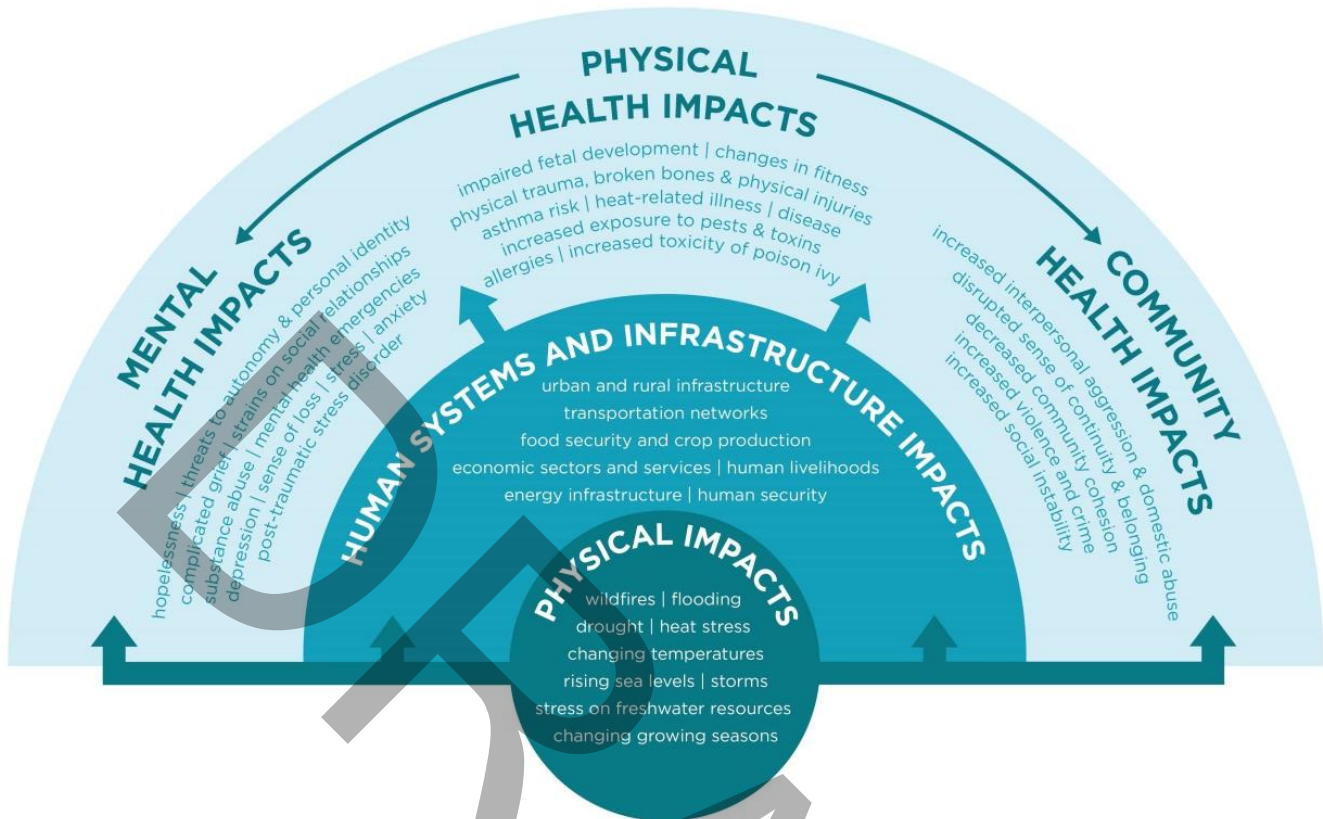
As members of the Green Practices Committee of University City, we believe that economic, environmental and social well-being (commonly known as the triple bottom line) are inextricably connected. In order to promote the quality of life of community members now, and for future generations, it is our duty to use available science, best practices, and partnerships to act as responsible stewards of the environment. In the age of globalization, we believe that local behavior and global welfare are linked: *this requires that we think globally, as we act locally.*

With these principles in mind, the Mission of the Green Practices Committee of University City is as follows:

“to encourage sustainable practices and programs that improve the health and quality of life of our community; restore and protect our natural resources; and strengthen our economy. It is widely recognized that there are local and global issues that threaten our ability to ‘meet the needs of the present without compromising the ability of future generations to meet their own needs’ (1987 Brundtland Commission). Therefore, it is imperative that we become sustainable, as individuals, as a community, and as a City”.

We are not simply acting out of principle. [Research](#) shows that, in the face of climate crisis, strategic sustainability efforts promote robust, equitable [economic development](#) and resilient [community health](#). A key [study](#) on the effects of climate change on mental, physical and community health show that public health and climate change effects are inseparable, and therefore must be dealt with simultaneously.

As climate change becomes more pressing each day, creating a plan is more vital now than ever. The [2017 EPA Midwest Climate Change](#) snapshot identifies the ways that climate change is already impacting the region, and how those impacts will amplify overtime. Overall, temperatures have already accelerated, leading to heavy rains alternating with very dry periods. This could lead to property damage, overflowing rivers and overwhelmed sewage systems, crop yield loss, and increased disease transmission. Additionally, increased temperatures pose risks to human health, from reduced air quality to increased allergens, to even more deaths from extreme heat waves.



**Health Impacts Due to Climate Change** - Effects of Climate Change impact the three main factors of health shown in this figure. These impacts affect People of Color, people in poverty, people with disabilities, women and people in rural areas more so than others as they do not have as many resources to combat the negative health effects of climate change. Image Source: Clayton, Susan, Christie, Manning, and Caroline Hodge. "Beyond Storms and Droughts: The Psychological Impacts of Climate Change." American Psychological Association, June 2014.

Additionally, as detailed in a recent report titled, "[Environmental Racism in St. Louis](#)," black residents in St. Louis are far more likely to suffer from energy burdens, food deserts, lead poisoning, asthma, air pollution, trash dumping, and vacant lots, than white St. Louisans. By creating a Strategic Sustainability Plan, we hope to further our local efforts and regional efforts towards ameliorating this disparity and uplifting environmental justice initiatives. *By creating, and actively engaging with, the University City Strategic Sustainability Plan, University City can act as a model for relieving environmental injustices through ongoing efforts for equitable sustainable development.*

In order to be a part of the global solution, we are focusing on the issues of biodiversity, energy and emissions, food access, waste and materials management, healthy transport, and water and green infrastructure, in hopes to enable the City and all of its constituents to have access to the means to improve their own wellbeing, as well as the wellbeing of the people, planet and community we have all grown to share and love.

# Biodiversity

## ***Why It Matters?***

Fostering biodiversity in University City benefits both human and environmental health. Connecting residents to nature can give a reprieve from daily stresses and [improve quality of life](#). Preserving and restoring green space not only makes the city beautiful but protects natural ecosystems, flora, and fauna.

## **Target 1: Connect residents to the various natural spaces and their neighborhoods in University City**

### **Collaborate with groups and organizations to create educational content**

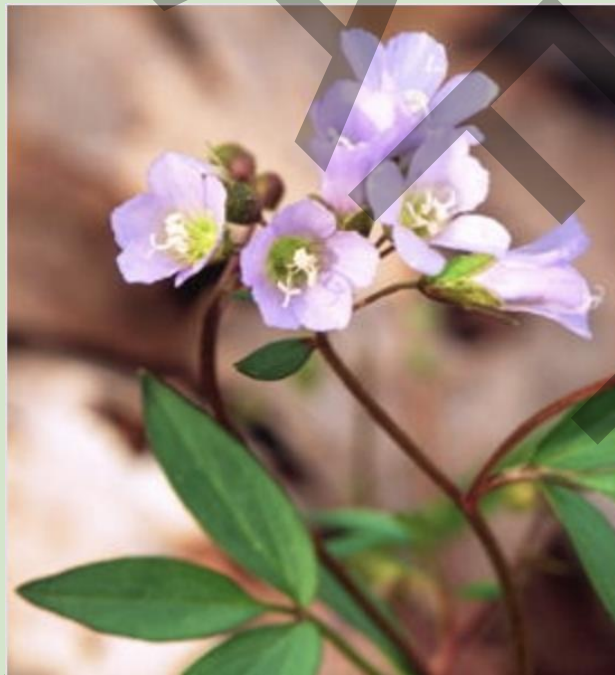
- Establish [programs](#) that connect youth and families to the surrounding wildlife and green spaces in the City
  - Work with the Missouri Botanical Gardens and Missouri Department of Conservation to promote a healthy, biodiverse community
  - Provide resources such as [Grownative](#) about promoting native plant species through platforms such as NextDoor and the City website
- Partner with surrounding organizations to develop content promoting the economic and health benefits of [tree canopies](#)
  - Use the [Columbus](#) and [Kansas City](#) initiatives to articulate the benefits of tree canopies
  - Create material that highlight the benefits of vegetation prevents erosion and improves the quality of surface and ground water

## **Did you know?**

The [Missouri Botanical Garden](#) hosts nearly 1,000,000 visitors a year

## Engage residents with ways they can promote biodiversity in their community

- Promote conservation from home programs with the assistance of the [Audubon Society](#)
  - Assist residents in removing grass and planting native gardens while reducing herbicide and pesticide use
- Develop workforce training programs for residents to restore and protect natural resources that lead to resident employment while actively avoiding community displacement
  - Advertise paid opportunities such as the [Youth Conservation Corps](#) that allow people to get experience while working directly on projects
  - Establish [community projects](#) with partner organizations that provide educational aspects while helping residents restore their surrounding green spaces
  - Remove [invasive species](#) along waterway buffers, replant with native species, and increase resources for management and maintenance expanding on previous initiatives in the 2012 University Sustainability Plan



An image of the native Jacob's ladder

*GrowNative*



## Target 2: Promote the planting and protection of species native to University City and the state of Missouri

### Create “education gardens” full of native species in public green space

- Educate the public on the both the beauty and importance of native species
  - Work closely with [GrowNative](#) to plant appropriate native species that benefit local wildlife and pollinators
  - Refit eco-urban parks with native plant species
  - Use the education garden as a learning opportunity for schools, youth groups, and summer camps

### Protect native species and critical habitat areas

- Encourage sustainable land management practices
  - Develop and implement organic land care policies to use safer and non-chemical alternatives
  - Work with businesses to reduce sale of invasive species
  - Monitor the presence of invasive and non-native species in green space
- Create a clear path for those seeking to participate in transforming city green space
  - Prioritize funding for projects lead by people of color
  - Develop programs for residents to restore and protect natural resources



A path in Shaw Nature Reserve

[Great Missouri Birding Trail](#)

### Did you know?

Missouri Botanical Garden’s plant finder is a great resource to find Missouri native plants that meet your needs

## Target 3: Ensure green space most effectively serves the needs of residents in the City

### Conduct an open space assessment to categorize green space in the City

- Identify and designate the [purposes](#) for all potential corridors and green spaces
- Identify the [stressors](#), potential threats and protect natural resource and critical habitat areas
  - Create remediation strategies to mitigate stressors and maximize the natural life in the City
- Develop mandatory buffers for areas that can impact a surface watercourse
- Consult with [experts](#) to determine needs of each green space

### Create ordinances to preserve the trees on private property

- Promote planting of trees and establish tree [protection](#) standards
  - Partner with organizations in the area to establish [adopt-a-tree](#) programs
- Fines for violating tree-property [requirements](#) such as chopping, damaging, and otherwise harming trees in the City
  - Require [replacements](#) when trees are damaged or removed

### Establish a baseline of the current status of open green spaces in the City that is to be improved upon in the upcoming Sustainability Plan

- Create tangible ways to [measure](#) progress towards goals and establish milestones in sustainability plan
  - Establish short-term and long-term [greening](#) efforts that transform the City
  - Prioritize funding for projects led by [neighborhoods](#) that focus on the individualized needs of the community members
- Ensure all decisions and baselines are grounded in an [equity lens](#) that calls for connections and interactions between people and nature to be made with the intentional integration of sustainability and social justice

# Energy and Emissions

## ***Why It Matters?***

As a precursor in the transition to renewable energy, improving energy efficiency is an imperative, affordable first step. By reducing GHG emissions, ameliorating the energy burden, and saving money overall, energy efficiency can engender a climate-resilient University City.

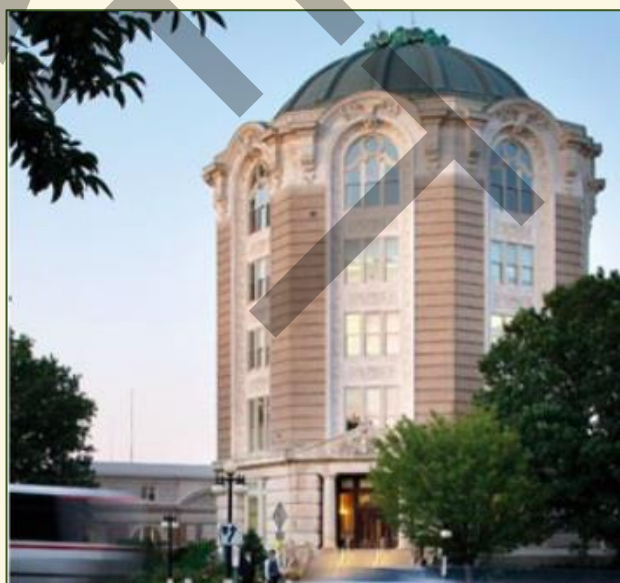
## Target 1: Improve Community Energy Education

Provide relevant energy resources to University City residents and businesses to generate savings, ameliorate the energy burden, and reduce greenhouse gas emissions and pollution

- Solar and Renewables Resources: [Grow Solar STL](#), Rooftop Wind Turbines via [Midwest Green Energy](#), [Arcadia](#), DOE Property Assessed Clean Energy Programs ([PACE](#)) in accordance with [Ordinance No. 6998](#), [Ameren Community Solar Program](#) & [Neighborhood Solar Program](#)
- Energy Efficiency: Federal Tax Credit for Solar PV ([DOE](#)), Ameren Energy Efficiency rebates for residential and [commercial buildings](#), [Spire gas rebates](#), MO DOE Energy Loan [Program](#)
- Energy Burden: Missouri DNR Low Income Weatherization Assistance Program ([LIWAP](#)), [CAASTLC](#) utility restoration services

## **Did You Know?**

The University City Hall renovation received LEED certification in 2008.



University City Hall post-renovation

[Architect Magazine](#)

## Target 2: Update Municipal Energy & Energy Efficiency Policies

### Find a baseline of energy usage and efficiency

- Employ online energy auditing and reporting software, such as [Dude Solutions Energy Manager](#), an updated Energy Star Portfolio, or [ClearPath](#) to facilitate energy benchmarking

### Create a greenhouse gas reductions target

- Set benchmarking goals based on reasonable targets (See [EPA GHG reduction implementation program](#))
- Enforce a benchmarking deadline on all municipal buildings
- Utilize the US Green Building Council Missouri Gateway Chapter: [Resources for Local Governments](#)
- Explore financing options for example, Guaranteed Energy Savings Contracts ([MO Statute 8.231](#))

### Update International Energy Conservation Code (IECC)

- Adopt 2018 or newer IECC code
- Utilize [DOE resource](#) to facilitate code update

### Consider creating an integrated policy for energy efficiency and greenhouse gas reductions

- See 2007 St. Louis City [Ordinance N. 67803](#)

### Did You Know?

The University City fire stations #1 and #2 have both had all of their lightbulbs switched to LEDs in 2018.



University City Fire House 1

[ArchImages STL](#)

## Target 3: Become a Solar and EV-Ready City

### Complete application for [SolSmart](#) certification to remove barriers to solar implementation in University City

- Create a website outlining solar certification process for University City

### Create and adopt a Solar-Ready Ordinance

- Adopt a solar-ready ordinance similar to the recent St. Louis City Solar-Ready Ordinance (N.71063)

### Make University City Electric Vehicle Ready

- Install public use car charging stations in strategic areas using [economic development retail sales tax funds](#) in conjunction with [Ameren rebates](#)
- Promote Ameren rebates to businesses to install electric car chargers

### Did You Know?

University City was the first city to have an all-electric fleet of city vehicles!



Solar Array found at Washington University in St. Louis

*WashU Sustainability*