



Green Practices Commission

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

AGENDA



GREEN PRACTICES COMMISSION MEETING

Thursday January 10, 5:30 – 7:00 p.m.

Heman Park Community Center, 975 Pennsylvania Avenue

1. Roll Call
2. Opening Round
3. Approval of Minutes
 - a. 11/08/18 Green Practices Commission Meeting Minutes
4. Special Presentations
 - a. Public Comments (Limited to 3 minutes for individual's comments and 5 minutes for representatives of groups or organizations)
5. New Business
 - a. SWMD municipal grant approval – additional drop-offs for glass and mixed paper
 1. Container Options
 2. Location Options
 - b. SWMD grant application – MRF analysis
6. Old Business
 - a. Mayors for Solar Cities – Solar project update
 - b. Sustainable Practices Guidelines (Developmental Green Practices): Update
 - c. Recycling update
7. Commission Reports
 - a. Council Liaison Update
 - b. Quarterly Report – Ecosystems/Habitat: Barbara Brain
 - c. Quarterly Report – Energy: Adam Staudt
8. Closing Round
9. Adjournment



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Meeting Minutes – University City Green Practices Commission

November 8, 2018 **DRAFT**

Location: Heman Park Community Center

Attendees Present: John Solodar (Chairperson), Barbara Brain, Adam Staudt, Mary Gorman, Adam Brown, Tim Cusick (Council Liaison), Jenny Wendt (Staff Liaison).

Attendees Absent: Timothy Dugan, Liz Essman, Jonathan Stitelman

1. Meeting called to order, Roll Call 5:30pm
2. Opening Round:
 - a. Barbara Brain announced that University City gets a lot of trees from Forest ReLeaf.
 - b. John Solodar worked on Proposition 2 campaign which passed with 78% of the vote.
3. Approval of Minutes
 - a. 10/11/18 Green Practices Commission Meeting Minutes were approved with minor amendments.
4. Special Presentations
 - a. Public Comments: None
5. New Business
 - a. Plastic Bag Initiative: Event at Forest Park on November 15th – America Recycles Day, demonstrating the number of plastic bags used every second in this country. Several stores will be promoting “Bag-Free Weekends” through the month of November. The commission proposed stickers on the carts indicating “NO PLASTIC BAGS”, a hot stamp on the cart, and/or magnets. Jenny will look into these options.
 - b. Mayors for Solar Cities is an initiative to support solar in the community. The City of University City may sign into this initiative. Currently University City does not have solar on any of its buildings. The commission would like to see a cost analysis of solar on City buildings prior to signing into a commitment to promote solar to its constituents.
 - c. Solid Waste Management District (SWMD) and St. Louis County Grants – Jenny will apply for a cost analysis of collecting glass separately through St. Louis County and for new glass and mixed paper drop-off containers to be placed at a new location.
 - d. No Idling Signs: Signs have been widely distributed throughout the Loop.

6. Old Business

- a. Sustainable Practices Guidelines (Developmental Green Practices) – Washington University indicated there is a possibility for a sustainability intern to help with this. The guidelines will be compared and discussed with the City of Seattle and the City of San Diego.
The guidelines will also be taken to plan, traffic, forestry commissions for informational purposes, then proposed to the City Manager and council.
- b. Renew Missouri – Jenny submitted a memo and the information to the City Manager and City Attorney for approval to apply for the non-binding interest form.

7. Commission Reports

- a. Council Liaison Update: Tim Cusick – City staff has been responding quickly to utility issues.

Redevelopment discussions will continue.

Stormwater survey is in the ROARS, Tim suggested the commissioners complete the survey.

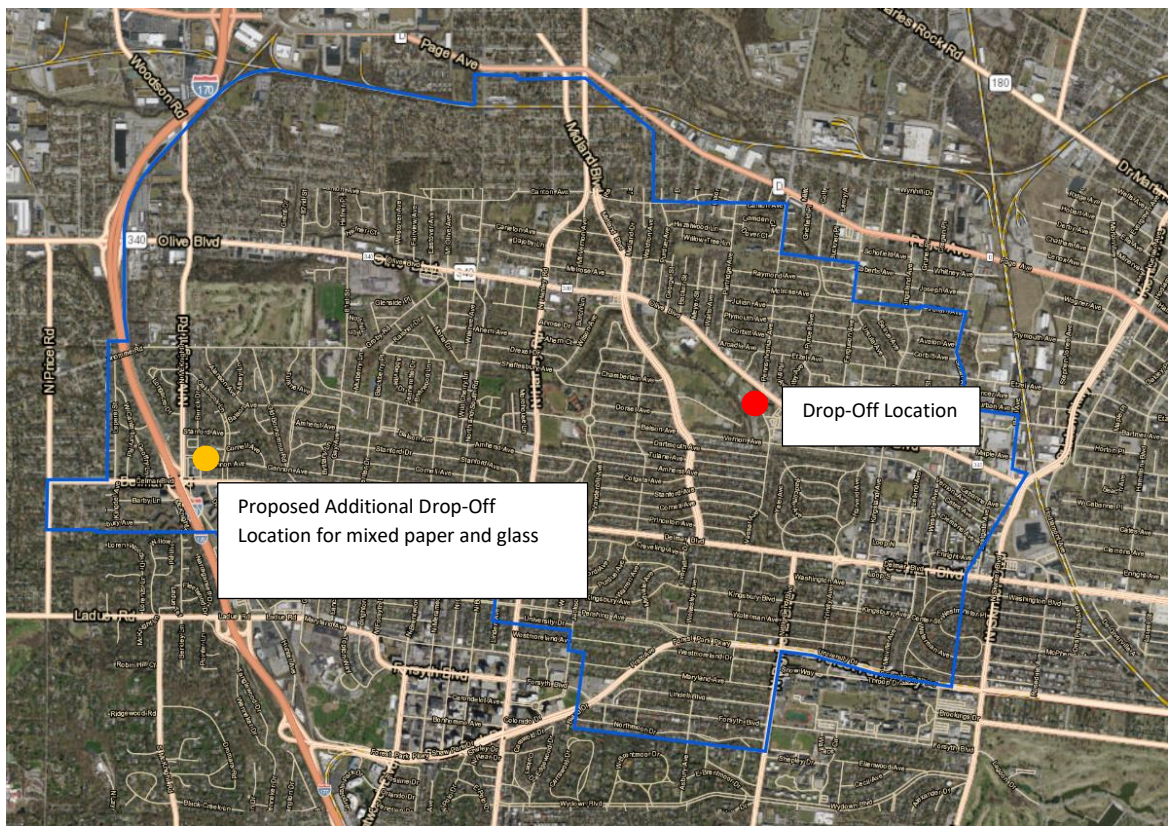
The Tea House is slated to be demolished soon.

Task force is being created to look at the relationship between Washington University and University City.

8. Closing Round

9. Adjournment at 6:24 pm







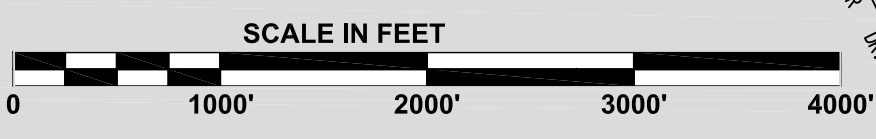
STREETS MAP

Department of Public Works and Parks
City Hall, 6801 Delmar Blvd.
University City, MO 63130
Tel. 314-505-8560



LEGEND

- PUBLIC HIGH SCHOOLS
- PUBLIC ELEM. SCHOOLS
- PAROCHIAL SCHOOLS
- CHURCHES
- FIRE STATION
- PRIVATE STREETS
- PUBLIC STREETS
- CUL-DE-SACS
- BARRICADES
- BRIDGE, PEDESTRIAN
- BRIDGE, VEHICULAR
- RAILROAD CROSSING
- BUILDINGS
- PUBLIC PARKS
- MUNICIPAL OFF-STREET PARKING
- STREET NUMBERS
- ONE WAY
- CITY LIMIT LINE
- COUNTY ARTERIALS
- STATE ROUTE





SHINING CITIES CAMPAIGN

With solar on the rise, cities can reap the benefits

Hundreds of thousands of Americans have invested in solar panels on their roofs or solar projects in their communities, and millions more are ready to join them.

America's major cities have played a key role in the clean energy revolution and stand to reap tremendous benefits from solar energy. As population centers, they are major sources of electricity demand, and with millions of rooftops suitable for solar panels, they have the potential to be major sources of clean energy as well.

Solar can create more healthy and vibrant communities by:



Reducing pollution that harms our health and our climate.



Creating local jobs that can't be outsourced.



Saving governments, residents and businesses money on their electric bills.

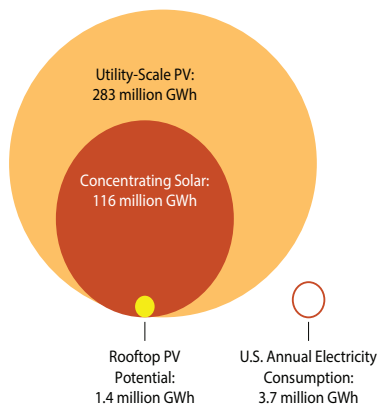


Making the power system more resilient.



Keeping energy dollars in the local economy.

COMPARISON OF SOLAR ENERGY TECHNICAL POTENTIAL AND CURRENT CONSUMPTION



Cities have only scratched the surface on solar energy

Cities have only begun to tap into their solar energy potential. Nationwide, we still generate less than 1 percent of our energy from the sun.

A recent study by the National Renewable Energy Laboratory shows that nearly 40 percent of U.S. electricity could come from rooftop solar alone. Many, if not most, of

the country's potential solar rooftops are located in cities and urban areas.

As solar prices continue to decline and technologies advance, we can do much more. By combining rooftop solar with energy efficiency and other renewable resources, we can power America's cities with 100 percent clean, renewable energy.

SHINING CITIES CAMPAIGN



We're asking cities to take solar to the next level

Environment America and our state affiliates are working to get cities and local governments across America to tap into the benefits and potential of solar by making major commitments to capture the power of the sun.

The “Shining Cities” campaign will engage and mobilize thousands of members and volunteers and the growing ranks of stakeholders who recognize the tremendous environmental and economic benefits to urge local governments to expand their use of pollution-free solar power.

The goal of the campaign is to have at least 20 cities embrace big solar targets by year-end 2017. We're working in commu-



In 2014, Philadelphia committed to 20,000 solar roofs by 2025



In 2015, Atlanta committed to putting solar on 28 city buildings.

nities from coast to coast toward this goal, everywhere from Maine to California.

The effort builds off the momentum and success of dozens of successful campaigns to convince local and state governments to adopt strong solar

policies and programs, including in Los Angeles, Philadelphia, Atlanta, Athens (GA), Cincinnati, Lansing (MI), Austin (TX), Milwaukee (WI) and Lake Oswego (OR), as well as successful campaigns for state level renewable energy policy in nearly 20 states.

What cities can do to go solar

Local governments can tap into solar power in their communities by:

- **Setting a strong solar goal**, such as: a number of solar rooftops, percentage of energy from solar, or a number of solar megawatts.
- **Leading by example** by putting solar on public buildings.

- **Establishing programs** that help citizens and businesses get better access to solar power, such as solar co-ops or wvsolarize programs.

Additionally, our campaign will seek to connect governments to experts and technical assistance programs to help execute these plans.

Join us to get your community to go solar

We want you to join us by showing your support for solar. Local officials can propose strong solar goals and helpful programs. Citizens can send an email to your local officials, write a letter to your local newspaper, attend one of our solar forums, or join us at a news conference or other special event.

Whatever you can do, the time for action is now. Solar is at a tipping point. If we keep winning more pro-solar policies, we'll see millions more Americans go solar in the next decade, put-

ting us on a path to a 100% renewable future. If we let utilities and other special interests get in the way, that future will remain out of reach as solar sputters and stalls.

We can do this. Together, we can bring more solar power to our homes, our communities, our churches and schools, our workplaces and our lives—and leave a cleaner, healthier world for kids growing up today and future generations.

Ten Ways Your City Can Go Solar



Solar Power is on the Rise Across America.

The United States has enough solar energy installed to power the equivalent of millions of homes. America's major cities are playing a key role in this clean energy revolution. Our annual Shining Cities report shows that cities in every region of the country are driving the adoption of solar energy, but most have only begun to tap their solar energy potential. The cities that are setting the pace for solar growth are driving development through effective public policy, and they are seeing benefits for the environment, public health, grid resilience, and consumers.

Here are some tips for how your city can follow their lead:

LEAD THE WAY

1. Set ambitious goals for solar energy adoption: Goals provide an opportunity to institutionalize a shared vision of a solar-powered future. Some cities have established solar goals as a part of a broader commitment to 100 percent renewable energy, while others have stand-alone solar commitments. San Diego, which has one of the highest installed solar capacities in the country, aims to generate 100 percent of all electricity used within the city from renewable sources by 2035. Solar energy makes up a large part of the city's plan to achieve that goal. Such commitments that apply to the entire community drive the most progress in both distributed and utility-scale solar.

2. Lead by example with solar installations on public buildings: Cities can set an example, boost the local solar market and save on electricity bills by installing solar projects on public buildings. The city of New Bedford, Massachusetts, has reduced electricity spending by installing solar power on city buildings and public spaces, including installations on three schools, a public gym and the Department of Public Infrastructure Building.

EXPAND ACCESS

3. Develop and publicize local financing options: The Property Assessed Clean Energy Program (PACE) allows local and state governments to loan money to home and business owners for energy improvements, which they repay over time through

Above: high school in Reno celebrates new solar array

Photo: BlackRockSolar via Flickr, CC BY 2.0

MORE ►



Solar panels atop homes in Tucson

property taxes. Cities can also partner with local financial institutions to offer competitive loans for solar projects. The “Milwaukee Shines” program, for example, partnered with Summit Credit Union to offer low-interest loans of up to \$20,000 for eligible solar PV installations. Partnering with local solar installers to allow customers to lease panels over time can also help reduce up-front costs.

4. “Solarize” your city: Bulk purchasing programs allow businesses, homeowners and nonprofits to purchase solar energy collectively, thus lowering the cost for everyone involved. Portland, Oregon, was the first to offer a “Solarize” bulk purchasing program, and many other cities have followed suit. In less than five months, “Solarize Athens” more than tripled the residential solar energy capacity in the Athens, Georgia, metropolitan area.

5. Encourage community solar projects: Community solar programs allow customers to support and benefit from solar power projects in their communities. Customers can either own a share of a community solar project, or they can subscribe through a Power Purchase Agreement (PPA). Cities can work with their utilities to offer both alternatives. For example, through the Tallahassee Solar program, city residents and businesses signed up to purchase electricity from a community solar farm at a fixed rate.

REMOVE OBSTACLES

6. Eliminate red tape: Non-hardware costs like those associated with zoning and permitting now make up about two-thirds of the total price of residential solar systems. So, cities can eliminate barriers by reducing fees, making permitting rules clear and readily available, and expediting permitting processes. The Department of Energy’s SolSmart program can help cities reform their permitting processes. West Palm Beach and El Paso provide online applications with same-day approval; actions that helped both achieve SolSmart Gold designation.

7. Guarantee solar rights: Solar access ordinances guard homeowners’ right to generate electricity from sunlight that shines on their property, regardless of homeowners’ association policies. Local governments should also offer clear zoning regulations that allow solar energy installations on residential and commercial rooftops. The city of Bozeman, Montana, successfully changed its city code to remove barriers to installing rooftop solar. The Delaware Valley Regional Planning Commission

offers a model ordinance guide that cities can apply to their own local laws.

8. Be “solar ready:” Some local governments have adopted policies to require new homes and buildings to have solar power or to be designed so that it can be easily installed. The city of San Francisco requires that most new buildings be constructed with solar energy systems already installed. The city of Tucson requires that any new single-family homes or duplexes either include a solar energy system or be “solar ready,” meaning pre-outfitted so that future solar PV and hot water systems are easy to add.

BE AN ADVOCATE

9. Partner with utilities: Cities should encourage the electric utilities serving their areas – whether municipal or investor-owned – to partner with them in unlocking the potential of solar energy. Con Edison, an investor-owned electric utility, worked with New York City and the State of New York to launch a “100 Days of Solar” initiative. While many investor-owned utilities have been willing partners with cities in promoting solar energy, cities served by less supportive utilities may wish to consider forming a municipal utility in order to gain greater control over their local electric grids.

10. Support strong state-level solar policies: State policies can have a large impact on a city’s ability to expand solar energy, so it is important that cities use their influence to advocate for stronger state financial incentives for solar energy, ambitious renewable electricity standards, strong net metering and interconnection standards, and comprehensive solar rights policies.

Sources available upon request.

For more information about Environment America research & Policy Center, for additional copies of this factsheet, or for copies of annual *Shining Cities* reports, please visit: www.environmentamericacenter.org





Department of Community Development
 6801 Delmar Boulevard, University City, Missouri 63130
 Phone: (314) 505-8500, Fax: (314) 862-3168

SP

PROJECT NUMBER: _____

SOLAR PANEL PERMIT APPLICATION

PROJECT SCOPE

This permit application is only to be used for the installation of Photovoltaic (PV) and Solar Thermal systems that are free-standing or installed on structures. Installations will also require obtaining any required electrical or plumbing permits.

Is this application the result of a Stop Work Order or work performed without the required permit? Yes No

Is this property located in a private subdivision? Yes No
If yes, please consult with private subdivision trustees to ensure the use or activity is consistent with private subdivision indentures.

PROJECT TYPE

- Residential Photovoltaic
- Non-residential Photovoltaic
- Residential Thermal (Hot Water)
- Non-residential Thermal (Hot Water)

DETAILED PROJECT DESCRIPTION

Please provide a detailed description of the project including the size of the system, location of the system, the location of the disconnect, and any installation instructions. A structural evaluation should be provided for systems installed on a roof. For freestanding systems, a site plan must be provided.

GENERAL INFORMATION

Address: _____
Project Address (Example: "123 Delmar")

Cost: _____
Estimated Construction Cost (Example: "\$4,000")

Exposure: _____
Square Footage of Exposure (Example: "56 SF")

APPLICANT INFORMATION

All fields must be completed unless noted. PLEASE PRINT.

First Name: _____
First Name

Last Name: _____
Last Name

Business Name: _____
Full Business Name

Mailing Address: _____
XXXX Street, Unit XX

Daytime Phone: _____
(XXX) XXX-XXXX

City/State/Zip: _____
City

E-mail: _____
XXXXX@XX.XXX

ENERGY EFFICIENCY

Will this project reduce energy use on the property?
 Yes No

**ADDITIONAL FIELDS INCLUDED
ON THE BACK**

PROPERTY OWNER Owner information is the same as the applicant

Owner: _____

Business: _____

Day Phone: _____

Address: _____

City/State/Zip: _____

E-mail: _____

*(Example: Jim Doe)**Business Name (Example: Owner, LLC)**(XXX) XXX-XXXX**(Example: 123 Delmar, Suite 210)**XXXX, MO XXXXX**XXXX@XXXX.COM***CONTRACTOR** Contractor information is the same as the applicant

Contractor: _____

Business: _____

Day Phone: _____

Address: _____

City/State/Zip: _____

E-mail: _____

*(Example: Jim Doe)**Business Name (Example: Builders, LLC)**(XXX) XXX-XXXX**(Example: 123 Delmar, Suite 210)**XXXX, MO XXXXX**XXXX@XXXX.COM***NOTES:**

- Finalizing the permit requires the Fire Department to review the installation once complete.

PROJECT FEESTo estimate the fees for a project, please go to the following website: <http://mygov.us/pi/citizen/feestimate.php?citiesID=362>.

ESTIMATED CONSTRUCTION COST	PERMIT FEE
REQUIRED APPLICATION FEE (NON REFUNDABLE)	\$35.00
\$1,400 to \$4,999.99	\$25.00 per \$1,000 of construction cost
\$5,000 to \$9,999.99	\$15.00 per \$1,000 of construction cost plus \$50
\$10,000 to \$399,999.99	\$6.00 per \$1,000 of construction cost plus \$140
\$400,000 to \$1,499,999.99	\$5.00 per \$1,000 of construction cost plus \$260
\$1,500,000 and up	\$4.00 per \$1,000 of construction cost plus \$2000
TOTAL	

OTHER FEES	PERMIT FEE
Partial Permit Fee	10% of scheduled fee with \$70 minimum
Amendments to Issued Permits	\$40.00 per hour (one hour minimum)
Additional Inspections	\$35.00
TOTAL	

APPLICANT ACKNOWLEDGEMENT AND SIGNATURE

By signing below, I state the information provided on this registration application is truthful to the best of my knowledge, and I have read and understand the terms of service documentation as it relates to this application. Further, I understand this is an application and not a permit. Work cannot begin until a permit is issued.

Name (Printed)_____
Signature_____
Date

Permits will not be processed on properties with outstanding trash bills.

Jenny Wendt

From: Steve O'Rourke <steve.orourke@straightupsolar.com>
Sent: Monday, January 7, 2019 5:27 PM
To: Jenny Wendt
Subject: Re: Information for University City Project

Hi Jenny,, sorry for the delay in my response. The new year is off to a busy start!

The payback on solar depends on several factors, including 1) the size of the array (larger arrays have a lower cost/watt) 2) the cost of grid power (higher energy costs makes for a quicker payback), 3) the utility rate structure (energy costs vs. demand charges) and 4) the solar resource (location and position of the solar array. Financial incentives can also contribute the the payback, of course.

The primary incentive for commercial business owners (and tax-paying consumers) is the 30% federal tax credit. Businesses can also capture 100% bonus depreciation in the first year, reducing taxable income and therefore lowering their tax burden. Since a municipality cannot take advantage of any of these, the only financial incentive is the solar utility rebate from Ameren. The \$10M funding for the initial \$0.50/watt rebate for 2019 has been fully depleted, but there is another \$5.6M in funding for the next year at \$0.25/watt.

A 150-kW rooftop array costing \$240K on the Centennial Commons with only the \$0.25/watt rebate on the large general service utility rate (3M with demand charges) would be 18.9 years. However, a 41 kW system on the Community Center costing \$81K with no demand charges would have an 11.5 year payback. However, this building has two meters, and without getting your monthly bills for the past 12 months to analyze usage in more detail, it's hard to tell how much we should put on each meter (the one bill we had there was a roughly 50-50 split.

The Service Complex has two buildings; the roofs of each could support more solar than the building requires without excessively exporting energy to the grid at the utility's avoided cost. The paybacks on each of these would be around 12-13 years.

Bottom line - there are a lot of variables. I've done a lot of complimentary analysis to get us this far, and would appreciate the opportunity to discuss with you.

Thank you for your interest in clean, renewable energy!

Steve O'Rourke

StraightUp Solar, Project Developer

Cell: (314) 359-1825

10330 Page Industrial Blvd, St Louis, MO 63132

www.straightupsolar.com

On Fri, Jan 4, 2019 at 11:41 AM Jenny Wendt <jwendt@ucitymo.org> wrote:

Hi Steve,

Can you tell me if any of these solar projects would have a 15 year or less payback? Can you provide an approximate payback for these projects?

Thanks,