

Energy

Community Input by Formal Submission Ideas and Recommendations for Moving Forward

The following information is a collection of formally submitted recommendations to the District Department of the Environment and the Office of Planning by local organizations. The information was reviewed and pertinent comments, suggestions and ideas for the energy working group are included in this document. Much effort by concerned citizens went into the creation of those documents and a lot of relevant material has been compiled. Please review these ideas and concerns to enhance participation in the working group process.

1. Becoming Greenest

Recommendations for a More Sustainable Washington, D.C.

Submitted by the **American Society of Landscape Architects**

New York City, Chicago, and Philadelphia increasingly view their contaminated inner-city brownfield sites as natural locations for large-scale solar installations.

At the [national Brownfields conference held in Philadelphia](#) this year, Dave Graham, who works on Chicago's brownfield program, said the City Solar project just "fell into our laps." He was called into a meeting in the mayor's office with representatives from Exelon and SunPower and found they wanted to create a massive solar farm on a derelict brownfield site. Actually, massive is an understatement for this project: It's the largest urban solar plant in the U.S. Its 32,000 photovoltaic (PV) panels provide 10 MW of energy, enough to power 1,500 local homes.

Heavily contaminated sites can cost up to \$150,000 per acre to clean up. The West Pullman site for City Solar, which "has a variety of issues," would have cost \$20 million alone to clean up, "something no one in the city wanted to invest in." As a result, Exelon simply put solar panels on top of the site, leaving the worst soils untouched underground. In some cases, where PV structures need to be installed, the team did actually discover underground storage tanks, which they then removed.

Washington, D.C. should undertake a comprehensive survey of existing brownfield sites to determine which could be used to form a public/private partnership with a solar power firm.

[Research](#) cited by the U.S. Environmental Protection Agency says if placed strategically, trees can reduce summertime cooling energy needs by 7–47 percent and wintertime heating needs by 2–8 percent.

The city should encourage the use of smart tree placement around residential and commercial buildings by increasing fines for tree removal and providing direct financial or tax benefits for tree planting near buildings on privately owned property.

According to one Canadian study, a 32,000-square foot green roof on a one-story commercial building in Toronto reduced energy usage by 6 percent in the summer and 10 percent in the winter. Similarly, the [green roof of the American Society of Landscape Architects \(ASLA\)](#), at just 3,000 square feet, reduces energy usage by 3 percent in summer and 10 percent in winter. To ensure the benefits of green roofs are widespread, cities like [Toronto](#) have mandated the use of green roofs for certain types of buildings.

D.C. should follow [Toronto's](#) lead and mandate the use of green roofs in all new buildings. To address older structures, the District can follow [Philadelphia's](#) lead and introduce a stormwater runoff fine, which will incentivize the use of green roofs, bioswales and permeable pavements — systems that not only cool but also help reduce energy use. The city can also incentivize the use of green roofs in older buildings by providing tax breaks for feasibility studies and other preliminary design assessment costs.

In addition, roofs can accommodate both green roof components along with solar panels. In fact, solar panels will work more efficiently near green roof sedum and plants as the air will be cooler. In the northern hemisphere, solar panels should be installed on commercial and residential rooftops to face south. It's important that tree shade doesn't cover the panels.

Incentivize the use of rooftop solar panels, and use in combination with green roofs.

2. Sustainable DC Recommendations and Resources Submitted by the Congress for the New Urbanism DC Chapter

PART ONE: OPERATING PRINCIPLES FOR SUSTAINABLE DC

(Select comments applicable to the energy working group)

12. Individual buildings and complexes shall conserve energy, and produce renewable energy wherever doing so promotes economies of scale and reduces reliance on fossil fuels and inefficient distribution systems.

13. Building design, configuration, and sizes must reduce energy usage and promote easy internal vertical and horizontal walkability. Approaches to energy design should include low-technology passive solutions that are in harmony with local climate to minimize unwanted heat loss and gain.

14. Renewable energy sources such as non-food source biomass, solar, geothermal, wind, and other nontoxic, non-harmful sources shall be used wherever they can make a net reduction in greenhouse gas emissions and contribute to energy affordability and reliability.

23. The design of the streets, blocks, platting, landscape, and building typologies shall all be configured for reduced overall energy usage and an enhanced quality of life in the public realm.

30. Renewable energy shall be produced at the scale that will best accomplish the goals of resiliency and minimal per-capita ecological footprint. Depending on context, this may be the individual building, neighborhood, city, or regional scale.

3. Sustainability Recommendations Submitted by DC Sierra Club

ACTION ITEM	PURPOSE	RESPONSIBILITY
(1) <u>Obtain 100% of DC Government's electricity from renewable sources:</u> (a) fully fund SEU; (b) in year 3 of SEU contract, ask contractor to propose new efficiency and green job initiatives with known return on	Transition DC energy investment, generation, and consumption to sustainable sources for cleaner air, reduction of global warming, and less reliance on distant and dirty sources.	DDOE, SEU, City Council, solar energy companies.

ACTION ITEM	PURPOSE	RESPONSIBILITY
investment for consideration of new funds; (c) increase SREC (solar renewable energy certificate) carve-out in RPS (renewable portfolio standard); (d) enact solar garden legislation and encourage solar gardens (farms) on parking lots, school buildings, public offices, park lands, and rights of way; (e) procure electricity from regional clean energy projects (e.g., wind power & DC solar gardens).		
(con't.) (2) Make DC government energy efficient: (a) optimize streetlighting (replace the globes with smart streetlighting); (b) conduct public agency energy audits; and (c) switch city fleet to electric hybrid cars and biodiesel trucks and buses.	Set public example for private sector; use streetlighting for streets, not sky; recycle restaurant oil waste; reduce truck and bus pollution effect on kids and community.	Mayor, DDOT, Chancellor (school buses), DPW (trucks).
(3) Amend building codes to require stricter energy efficiency standards: (a) turn off interior office building lights at night; (b) close retail door if outdoor temperature is <65 or >80; and (c) no A/C set <65; and (d) LED traffic lights.	Reduce air pollution and greenhouse gas emissions caused by unnecessary electricity usage.	City Council, real estate managers.
(4) Aim for 50% of multi-unit buildings to heat water with solar power.	Reduce air pollution and greenhouse gas emissions caused by unnecessary electricity usage.	DDOE, builders.
(5) Install solar panels on DC's "big four" government buildings	Public education; reduce air pollution and greenhouse gas emissions caused by unnecessary electricity usage.	

4. UDC Ward 3 Input

Submitted by the **University of the District of Columbia**

(Only items relevant for review by the energy working group are listed)

On 28 September, UDC held a meeting as part of 'Start in September' under Mayor Gray's [Sustainable DC](#) initiative. Office of Planning staff, UDC staff, and concerned citizens gathered to discuss ideas about the attributes of a sustainable city in an effort to break down high-level concepts and bring them into our local context.

This open discussion at UDC allowed participants to share their own visions and aspirations for the city and gave them an opportunity to listen to other residents with different perspectives. In small tables of 4-5 people, we discussed three guiding questions:

- 1) What are the attributes of a sustainable city?
- 2) How does DC measure up to that vision of a sustainable city?
- 3) How can we engage and energize the whole city around this sustainability plan?

Question 1: What are the attributes of a sustainable city?

The city is in sync with natural systems and all resources are valued.

- Holistic thinking is present in all planning efforts
- Climate, energy, and water are protected
- People are connected to nature
- People are weaned off of fossil fuel for transport

Question 2: How does DC measure up to that vision of a sustainable city?

Strengths

- Grassroots action - more and more NGOs and businesses are involved in sustainability

Weaknesses

- DC has worse than national carbon emissions and energy used is dirty/Built environment is below average for energy use.
- City systems are not in sync with natural systems

From the conversation came the following suggestions for building on our strengths and addressing our weaknesses:

Local Goals –

- Energy aware citizens
- Reduced/renewable energy for transit

Potential Action –

- Build combined heat and power generation systems/district energy/recycled heat
- Change energy sources from dirty to clean
- Increase energy awareness

Question 3: How can we engage and energize the whole city around this sustainability plan?

Social Media Strategy

- Twitter meetings – Q&A between city officials and Tweeps
- Tweet ups
- Sustainable DC Foursquare Badge

Collect ideas outside of meetings

- Collect ideas on napkins, used envelopes, things with blank surface areas like toilet paper
- Suggestion boxes for sustainable DC at local businesses – maybe through Think Local First
- Collect ideas via text

Mobile meetings

- Bike rides
- Experimental circulator bus routes

Paid/incentivized participation

- Give rebate for bottle recycling (5-10 cents)
- Make it FUN
- iPod giveaway at planning meetings
- Take the money we would have used to hire a consultant and instead pay businesses directly to participate.

Go to existing meetings and groups

- Churches/Religious networks/GWIPL/Creation Care
- ANC meetings – Mobilize the ANCs
- Boy Scouts/Girl Scouts
- Unions

- Rotary Club
- Lions Club
- Business orgs like AOBA
- Parents at playgrounds on Saturday mornings

Go to existing events

- Local sports venues
- Music/concerts
- Comedy shows

Get schools engaged

- Universities
- Clubs (UDC Sustainability Club, UDC Garden Club)
- Put in school curriculum /better education on environmental issues

Showcase and encourage good examples

- Create competitions between schools
- Incentivize local business participation by holding competitions, giving awards for green practices
- Competitions between employees of small/large firms
- Action is motivating – bring the results of your own actions to the next meeting to share back with the group
- Shame bad behavior
- Lead by example, especially for city leadership

Reach all community members

- Have meetings whenever it makes sense in your community. Don't rush it based on this planning process.
- Switch target demographic and recognize that kids are change agents
- Reach pockets, but also have a central place to bring ideas back together/find out about new events
- Everybody must bring 2 new people to next meeting – if we keep doing this, we'll eventually reach a critical mass