

Environmental Commission Meeting

Thursday, April 4, 2013 – 6:00 p.m.

Public Services Building

7700 Southern Avenue

MINUTES

Present

Chairman Joe Skelley

Clyde Davidson

Urania Erskine

Steve Fleischmann

Andy Foster

Linda Kaplan

Paul Mosteller

Staff

Leslie Throneberry

Absent: Jimmy Davis, Laura Meanwell, David Thorpe, Anne Wesberry, Alderman John Drinnon, Joe Nunes and Bo Mills

CALL TO ORDER:

Chairman Skelley called the meeting to order at 6:05 p.m.

ESTABLISHMENT OF QUORUM:

A quorum for the Environmental Commission meeting was established.

MINUTES APPROVAL:

The minutes of the March meeting were approved.

STAFF REPORTS:

Chairman Skelley reported for Joe Nunes that the recycling volume for March 2013 is down 7% compared to March 2012. See Attachment A.

Mr. Skelley also reported that there will be electronics recycling and shredding at Johnson Road during the April 20, 2013 Amnesty Day Event. Amnesty Day sign-up sheet was passed around for committee members to volunteer to work. See Attachment B.

Mr. Skelley shared the letter that the library sent to Susan Threlkeld about the books donated in her honor by the Environmental Commission.

COMMITTEE REPORTS:

Clyde Davidson: Mr. Davidson had nothing to report.

Linda Kaplan: Mrs. Kaplan had nothing to report.

Urania Erskine: Mrs. Erskine reported that some municipalities are giving tax credit up to \$10,000 for green improvements to properties. Mr. Mosteller commented that he was at the Financial Advisory Commission

meeting this week and storm water improvements were discussed. Administration is looking into using some of the storm water funds to make these improvements.

Paul Mosteller: Mr. Mosteller brought a Home Water Audit that he found on the internet. This may be helpful in the school visit program. It may also be something that could be posted on the City's website and/or included with the water bills. See Attachment C.

Steve Fleischmann: Mr. Fleischmann was in Palm Springs, California and passed a wind farm with 3,200 turbines. Mrs. Kaplan commented that she read an article this week that said the next generation of wind turbines will be without propellers.

Andy Foster: Mr. Foster brought in a Sol-Mate solar battery charger for cell phones. Charging a cell phone takes 16 – 20 hours using this charger versus 2 hours using a USB cord and laptop.

Mr. Foster also brought in a schematic diagram for the Sol-Chip Energy Harvester, which is a photo voltaic cell which produces multiple voltage levels. See Attachment D.

Old Business: N/A

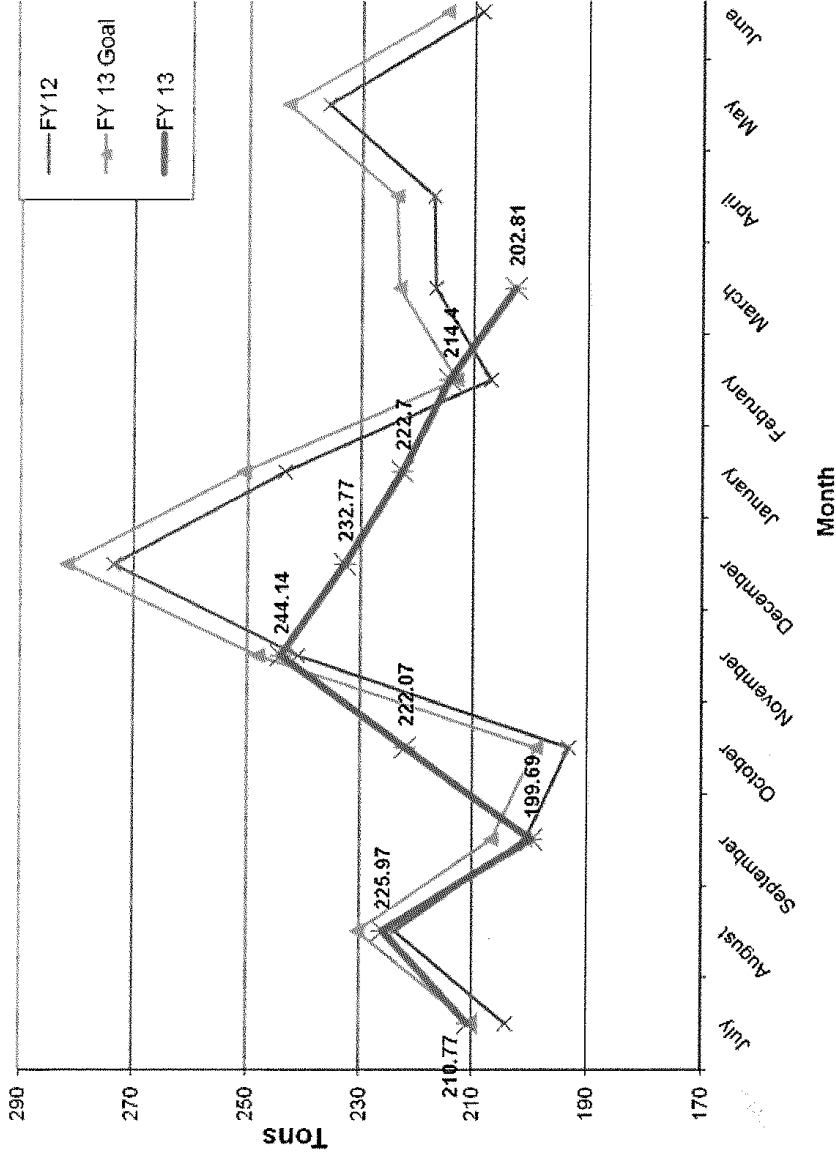
New Business:

Amnesty Day is April 20, 2013 at the Public Services Complex and at Johnson Road Park.

It was decided that the July 2013 Environmental Commission meeting on July 4, 2013 be cancelled because of the holiday.

ADJOURNMENT: There being no further business, the meeting was adjourned at 6:46 p.m.

FY 12 - FY 13 Recycle Volume Comparison



While the March volume is down 7% compared to last March, there was one less working day in March this year and when you compare the average per working day it is down just 2%.

Attachment B

AMNESTY DUMPSTER DAY
April 20, 2013
7:30 AM - 1 PM

LOCATIONS: 1) PUBLIC WORKS 2) JOHNSON ROAD PARK

Environmental Commission Sign-up Roster

| PUBLIC WORKS ON SOUTHERN | |
|--------------------------|--|
| Clyde Davickson | |
| Quida C. Kasler | |
| Paul Mitchell | |
| | |
| | |
| | |

| JOHNSON ROAD PARK | |
|-------------------|--|
| Joe Kelley | |
| URANIA ERSKINE | |
| STEVE FLEISCHMANN | |
| Andy Jones | |
| David Thorpe | |
| | |



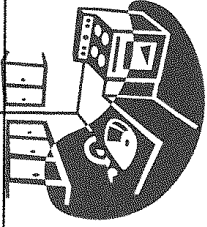
HOME WATER AUDIT

Are you interested in learning how to save water and money at home? This home water audit will help you identify easy ways to conserve water at home. Answer the "How do you use water?" questions. Circle the responses that best match your current water use actions. Each response has a water drop rating. After answering all of the questions, count the number of water drops to determine your home water conservation score.

A) BATHROOM USAGE

| How Do You Use Water? | Your Water Use Actions | | | Water Smart Tips |
|--|--------------------------------------|---------------------------------------|---------------------------------------|---|
| | Yes | Don't know | No | |
| Do you check the toilet tank for water leaks at least twice a year? | 2 Water Drops | 0 Water Drops | 0 Water Drops | Place a few drops of food coloring in the toilet tank. If the food coloring is seen in the bowl without flushing, there is a leak. |
| Do you have a low-flow toilet? (If home was built after 1992, circle yes). | Yes 2 Water Drops | Don't know 0 Water Drops | No 0 Water Drops | A low-flow toilet uses 1.5 gallons of water per flush instead of an older toilet that uses 5 or more gallons of water per flush. |
| How often is the toilet being used as a wastebasket to flush away trash? | Never 2 Water Drops | Sometimes 0 Water Drops | Always 0 Water Drops | Use a wastebasket instead of the toilet to flush away trash. Each flush uses 1.5 or more gallons of water, depending on the type of toilet. |
| Do you have a low-flow showerhead? (If less than 2 gallons of water per minute, circle yes.) | Yes 2 Water Drops | Don't know 0 Water Drops | No 0 Water Drops | Low-flow showerheads can save approximately 3 gallons of water per minute. |
| What is the average shower time per person? | Less than 5 minutes 2 Water Drops | Between 5-10 minutes 0 Water Drops | More than 10 minutes 0 Water Drops | Taking shorter showers can save approximately 5 gallons of water per minute depending on the type of showerhead. |
| What is the average depth of water in the bathtub? | Less than 1/2-full 2 Water Drops | 1 Water Drop 1/2-full | 0 Water Drops Full | Filling a bathtub less than 1/2-full can save approximately 18 gallons of water. |

Attachment C



B) KITCHEN AND LAUNDRY USAGE

| How Do You Use Water? | Your Water Use Actions | | | Water Smart Tips |
|--|---|--|--|---|
| | Yes | Don't know | No | |
| Do you have an aerator on the kitchen sink faucet? | 2 Water Drops Water turned off when not needed | 0 Water Drops Water continually running while rinsing | 0 Water Drops Water continually running while washing and rinsing | Aerators can save up to 2 gallons of water per minute. |
| How are dishes hand washed in the sink? | 2 Water Drops Less than 1/2-full | 1 Water Drop 1/2-full | 0 Water Drops Full | Fill the kitchen sink with water to wash and rinse dishes instead of letting the water continually run. |
| How full are your dishwasher loads? | 0 Water Drops Less than 1/2-full | 1 Water Drop 1/2-full | 2 Water Drops Full | Wait until you have full loads. Use water and energy-saving cycles. |
| How full are your laundry loads? | 0 Water Drops | 1 Water Drop | 2 Water Drops | Wait until you have full loads. Use water and energy-saving cycles. |



C) OUTDOOR USAGE

| How Do You Use Water? | Your Water Use Actions | | | Water Smart Tips |
|--|--|--|---|---|
| | Yes | Don't know | No | |
| Are lawns watered only when they really need it? | 2 Water Drops | 0 Water Drops | 0 Water Drops | Adjust your lawn-watering schedule to the season. For winter grass, water every 7-14 days. For summer grass, water every 3-6 days. |
| What types of plants make up the majority of your landscape? | Mostly low-water use | Mixture of low- and high-water use | Mostly high-water use | Landscaping with low-water-use plants can reduce your outdoor water use. Contact the city of Glendale Water Conservation Office at 623-930-3535 for a list of low-water-use plants. |
| What time of the day do you water? | 2 Water Drops In the morning or evening | 1 Water Drop Anytime of the day | 0 Water Drops During the middle of the day | Watering in the cooler times of the day (morning or evening) reduces the amount of water that is lost through evaporation. |
| How do you clean your driveway and sidewalks? | 2 Water Drops With a broom only | 1 Water Drop With a broom and garden hose | 0 Water Drops With a garden hose | Use a broom, instead of a garden hose, to clean your driveway and sidewalks. It does the job just as well and you will save water. |
| How do you wash your car? | 2 Water Drops Bucket of water | 0 Water Drops Garden hose with spray nozzle turned on and off | 0 Water Drops Garden hose with no spray nozzle | Use a bucket of water to wash your car instead of letting the garden hose continually run. If you use a garden hose to rinse your car, turn the water on and off as needed. |

Your Home Water Conservation Score:

20 to 30: Excellent! You are possibly saving hundreds of gallons of water each month. Share your Water Smart Tips with family, friends, and neighbors.

10 to 20: Good! Read through the Water Smart Tips and adopt two water saving tips this month and two more next month.

10 or below: Needs Improvement! Read through the Water Smart Tips and adopt three water saving tips this month and three more next month.



Product

Sol-Chip™ Energy Harvester – Sample Units

Sol Chip Energy Harvester is a unique Photo Voltaic (PV) cell which produces six selectable voltage levels: 0.7 volt, 1.4 volt, 2.1 volt, 2.8 volt, 4.2 volt, 8.4 volt.

Each selectable voltage delivers different current.

The maximum power which can be extracted in full daylight is ~8 mWatt and in office lighting the power extracted is 60-100 μWatt, dependent on ambient lighting intensity.

Additional voltage levels and also several voltage and power levels can be delivered simultaneously from separate pins of the device.

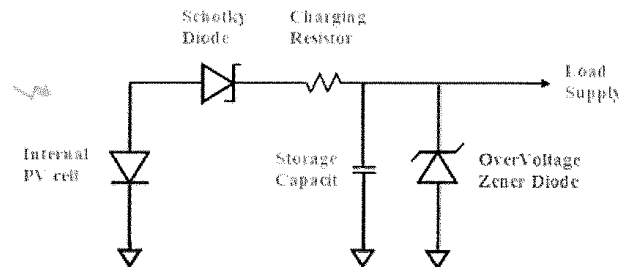
Samples Specification

| | |
|---------------------------------------|--|
| Voc: | 0.7V, 1.4V, 2.1V, 2.8V, 4.2V, 8.4V |
| ISC ⁽¹⁾ at full daylight: | 18 mAmp |
| Pmax at full daylight: | 8 mWatt |
| Pmax at office light ⁽²⁾ : | 60-100 μWatt |

(1) For the case of Voc=0.7v.

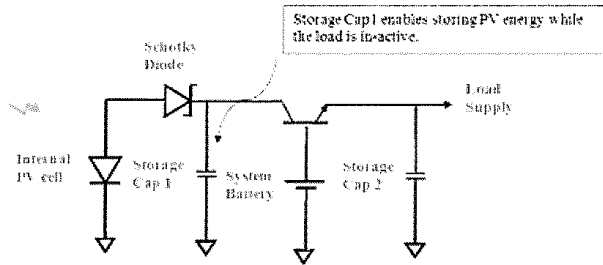
(2) Depends on light conditions

System Schematic Diagram



System schematic diagram: Example 1 - no system battery

With System Primary Battery



System schematic diagram: Example 2 – with system primary battery

Advantage:

Dual Charge Storage: When Load current < PV current, the Storage Cap 1 is charged and enables charge buffering. This will increase the energy efficiency.

Limitations:

1. Vbat defines Load voltage – Vload tracks Vbat voltage drop
2. $V_{load} = V_{bat} - 0.7V$
3. During light condition, Ibat is not 0 Ampere.
PV supplies current I_{pv} to load & Storage Cap 2 @
 $I_{bat} = I_{pv} / \beta$

HOME COMPANY TECHNOLOGY PRODUCT APPLICATIONS NEWS CONTACT US

Sol Chip Ltd. ✉ 157 Derech Jaffa Haifa, Israel 35251 ✉ Phone: +972.4.8216942 ✉ E-mail: info@sol-chip.com