

Sustainable Energy Utility Advisory Board

**FY 2012
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Executive Summary

September 30, 2012 marked the end of Fiscal Year 2012 for the District of Columbia government and the first full operational year of the Sustainable Energy Utility. Its operations officially commenced on March 24, 2011, when the District of Columbia government entered into a formal contract with Vermont Energy Investment Corporation. Pursuant to the Clean and Affordable Energy Act of 2008 ("CAEA," D.C. Code Section 8-1773.01 *et seq.*), the Sustainable Energy Utility is a private contractor selected by the District of Columbia government to develop, coordinate and provide programs for the purpose of promoting the sustainable use of energy in the District of Columbia. At a minimum, the contractor is required to achieve the following benchmarks: (1) Reduce per-capita energy consumption in the District of Columbia; (2) Increase renewable energy generating capacity in the District of Columbia; (3) Reduce the growth of peak electricity demand in the District of Columbia; (4) Improve the energy efficiency of low-income housing in the District of Columbia; (5) Reduce the growth of the energy demand of the District of Columbia's largest energy users; and (6) Increase the number of green-collar jobs in the District of Columbia.

An additional requirement specified in the Clean and Affordable Energy Act is that the portfolio of Sustainable Energy Utility energy efficiency programs, funded by the Sustainable Energy Trust Fund, must pass the societal benefit test on an annual and contract basis. The Act requires the SEU energy efficiency program portfolio, as a whole, to pass the societal benefit test. The societal benefit test ratio is calculated by dividing the present value of total benefits by the present value of total costs, using a societal discount rate.

The Sustainable Energy Utility is subject to performance oversight by the Council of the District of Columbia and the District of Columbia Department of the Environment. To assist in the review of its performance, a Sustainable Energy Utility Advisory Board ("Board") was established, pursuant to the CAEA. The express purpose of the Board, by law, is to provide advice, comments, and recommendations to the District of Columbia Department of the Environment ("DDOE") and the Council of the District of Columbia regarding: (1) The procurement and administration of the Sustainable Energy Utility ("SEU") contract; (2) Advise the DDOE on the performance of the SEU under the SEU contract; and (3) Monitor the performance of the SEU under the SEU contract. The SEU Advisory Board is comprised of a diverse group of Mayoral and Council appointees with demonstrable expertise in energy efficiency or renewable energy. By statute, the Board is comprised of the following representatives: (1) the Mayor, or his or her designee, who shall chair the Advisory Board; (2) the People's Counsel or his or her designee; (3) the Chair of the Public Service Commission or his or her designee; (4) One member appointed by the Chairman of the Council committee with oversight of the Energy Office; (5) One member appointed by the Chairman of the Council; (6) One member, appointed by the Mayor, representing the renewable energy industry; (7) One member, appointed by the Mayor, representing an environmental group; (8) One member, appointed by the Mayor, representing the low-income community; (9) One member, appointed by the Mayor, representing the building construction industry; (10) One member, appointed by the Mayor, representing the building management industry; (11) One member, appointed by the Mayor, representing the economic development community with particular expertise in the

generation of green-collar jobs; (12) One member, appointed by the Mayor, representing the electric company; and (13) One member, appointed by the Mayor, representing the gas company.

The Sustainable Energy Utility is required to report on its performance monthly, quarterly and annually. The quarterly and annual reports, by law, must be submitted to the Council of the District of Columbia.

The SEU contract is funded by an assessment on electric and natural gas customers calculated on a per-kilowatt hour and per-therm basis. These funds are collected by the electric and gas utilities and transmitted to the District of Columbia fiscal agent to be applied to the Sustainable Energy Trust Fund. As a matter of law, the annual expenditure on natural gas-related programs shall be no less than 75%, and no greater than 125% of the amount provided in the contract from the assessment on the natural gas company; and the annual expenditure on electricity-related programs shall be no less than 75%, and no greater than 125% of the amount provided in the contract from the assessment on the electricity company. The contract is performance based. Thus, the contract provides financial incentives for the SEU to surpass the performance benchmarks set forth in the contract and financial penalties should the SEU fail to meet the required performance benchmarks.

In 2011, the Board reported to the District of Columbia Department of the Environment concerning the performance of the SEU from March 24, 2011 through September 30, 2011. During this period, the SEU met the contract performance indicators, achieving all activity milestones and attaining the minimum threshold for the green jobs performance benchmark.

In 2012, the SEU implemented multiple programs designed to achieve the benchmarks set forth in the law and the related contractual obligations. The Board has reviewed the performance benchmarks and has received information from the Sustainable Energy Utility, relative to whether or not it has met the established benchmarks. However, the Board has concerns that it is required to complete its annual report, prior to an independent Evaluation, Measurement and Verification review being conducted. This independent review would be a critical element in verifying whether or not the SEU has met the benchmark requirements set forth by the CAEA and the terms of the contract. In addition, the audit report for FY12 will not be available, prior to the date set by statute for the Board to complete its annual report. To assist the Board in its review of the SEU's performance, the Board is relying on quarterly reports, presentations and the annual report submitted by the SEU to assess its performance in Fiscal Year 2012. The Board has no means of independently verifying the information provided to it.

It is important to note that pursuant to information provided by the SEU, it has met and/or exceeded the majority of the statutory benchmarks; however, it has failed to meet a very critical benchmark, which requires that the SEU reduce electricity and natural gas per-capita energy consumption in the District of Columbia. The established minimum performance benchmark for electricity was 45,746 MWh and the FY2012 result was 24,504 MWh. The established minimum performance benchmark for natural gas was 120,000 Mcf and the FY2012 was 6,254 Mcf, less than 5% of the goal. In addition, the SEU failed to expend the statutorily required resources on natural-gas related programs in FY 2012. The target was \$1.9M and the actual expenditure was

\$700k. This failure to expend the required resources on gas programs means that gas customers paid over \$1.9 M in funds and were offered \$700,000 for programs in fiscal year 2012.

Recommendations of the Sustainable Energy Utility Advisory Board

Pursuant to the Clean and Affordable Energy Act, the Sustainable Energy Utility Board is required to submit a report on the "Performance of the Sustainable Energy Utility," prior to an independent Evaluation, Measurement and Verification ("EM&V") being conducted. Therefore, the Board must rely exclusively on self-reporting by the Sustainable Energy Utility. The Board has no means of independently verifying the information provided by the SEU. The Board recommends that the law be amended to allow the Board to submit its recommendations after the EM and V and audit report, for the subject year, has been completed. If this modification is not made, the Board will consistently be in a position of not being able to verify the performance of the SEU and having to make recommendations concerning penalties and/or incentives, regarding the related contract and benchmarks set forth in the statute.

A critical statutory mandate of the Clean and Affordable Energy Act requires that the Sustainable Energy Utility meet minimum requirements, relative to annual expenditures related to electric energy efficiency and natural gas energy efficiency.¹ The SEU did not meet the minimum requirements of the statute, relative to natural gas programs. In addition, the SEU did not meet the performance benchmarks related to reducing per-capita energy consumption. The SEU contract is funded by an assessment on electric and natural gas customers calculated on a per-kilowatt hour and per-therm basis. Failure of the SEU to expend resources provided by these customers on programs that would directly benefit them is of great concern to the Advisory Board. Washington Gas consequently recommends that the Sustainable Energy Utility not receive financial incentives in Fiscal Year 2012.

The Sustainable Energy Utility Advisory Board recommends that the SEU share with the Council of the District of Columbia, the District Department of the Environment and the Advisory Board its plan(s) for ensuring that the performance benchmarks and minimum requirements are met, in these categories, in FY13. Should the SEU identify any impediments that would preclude them from achieving these requirements, this information should also be shared with the District Department of the Environment, the Council of the District of Columbia and the Sustainable Energy Utility Advisory Board.

The Sustainable Energy Utility Advisory Board recommends that the Sustainable Energy Utility not receive performance incentives for reducing per-capita energy consumption in Fiscal Year 2012. The SEU failed to meet the established benchmark for electricity and natural gas.

Several Sustainable Energy Utility Advisory Board members have expressed concerns with the Sustainable Energy Utility Advisory Board being chaired by the Director of the District Department of the Environment. The Board is required, by statute, to provide advice, comments and recommendations to the DDOE and the Council of the District of Columbia. Certain members are of the opinion that this potentially creates a conflict of interest and that the

¹ D.C. Code Section 8-1773.01 *et seq.*, Title 1 Section 102(h) and the Sustainable Energy Utility Contract, Section C8.

executive should review this appointment to determine whether or not it creates true as well as perceived conflicts when the role of DDOE, relative to the SEU contract, and the Board's responsibility, relative to DDOE. The Chair of the Sustainable Energy Utility Advisory Board is not in agreement with this recommendation.

The Sustainable Energy Utility Advisory Board recommends that residential and commercial awareness of the SEU be measured, scientifically. While the SEU reports that this entity has significant name recognition and its purpose and strategies are understood by influential figures throughout the District of Columbia, this information is more anecdotal. Empirically measuring awareness would be beneficial to the SEU, the DDOE, the Board and District residents. Any measurement of residential and commercial awareness should be cost effective; therefore, the SEU, the Board and DDOE should consider possible alternatives.

The Sustainable Energy Utility Advisory Board recommends the reevaluation of the annual budgeting and performance periods for the SEU. There is the perception that program design and expenditures may be constrained to inefficient outcomes. One result is the need for the SEU to expend funds exponentially towards the end of the fiscal year to meet both statutory and contractual requirements. This leads to what appears to be rushed decisions and directing resources to programs that will facilitate an "easy spend." Multi-year planning with aligned budgets and performance requirements could avert this situation and assist the SEU in meeting its benchmarks and minimum requirements.

The Sustainable Energy Utility Advisory Board recommends that the SEU engage in comprehensive and strategic outreach to private solar energy companies licensed in the District of Columbia to leverage private sector resources in accelerating the implementation of renewable energy in the District of Columbia. The electric utility and the Public Service Commission of the District of Columbia should also be a part of these discussions to address interconnection requirements and considerations.

I. Overview of the Sustainable Energy Utility Performance in Fiscal Year 2011

The Sustainable Energy Utility submitted its first Annual Report to the Council of the District of Columbia on October 30, 2011. The report addressed the following: (1) actual expenditures for administrative, information technology, natural gas, and electricity-related program expenditures, and service delivery costs, compared to the approved budget; (2) a detailed financial report for the DC SEU; (3) a summary of progress made in achieving energy savings; (4) a summary of progress and highlights for the year, including significant implementation issues and changes or anticipated changes in implementation strategies and services; (5) total District-resident employment in full-time equivalent positions and its Teaming Partners, "collaborators," and Implementation Contractors, attributable to the DC SEU programs; and (6) the number of District of Columbia Department of Employment Services ("DOES") referrals hired as reported on the Contractors' and ICS' First Source Employment Agreement Forms for the year.

During its first year of operation and continuing into its second full year of operation, the SEU has been engaged in consumer education and marketing activities to ensure that District residents are aware of the SEU brand, its purpose, and programs that have been developed and implemented. It was reported in the 2011 Annual Report that the DC SEU "now has significant name recognition and its purpose and strategies are understood by influential figures throughout the District of Columbia." While this statement has been made, there is no supporting evidence of this through an independent measurement tool. Continued education is necessary; however, the level of awareness among residential and commercial customers is not captured statistically and is more anecdotal. Therefore, the Board recommends that resident awareness be measured, scientifically, to adequately measure outreach and awareness and to ensure that education is targeted consistently with the funding from both gas and electric customers.

At the end of Fiscal Year 2011, the SEU met the Certified Business Enterprise and green jobs requirements. In addition, based on information submitted to the Board and DDOE, by the SEU, it also met the low-income resident requirements. All established milestones were achieved. The SEU completed and submitted the *Strategic Planning Analysis and Annual Plan*, in early September 2011. This document identified proposed work for Fiscal Year 2012, based on market research. In 2012 and beyond, workforce development remain critical deliverables.

II. District of Columbia Department of the Environment on SEU Performance in Fiscal Year 2012

Pursuant to the Clean and Affordable Energy Act of 2008, DDOE is required to commission an annual independent review of the performance and expenditures of the SEU and report on the results to the Council of the District of Columbia, annually. While contractors have been selected to perform these tasks, the reports will not be available until after the Advisory Board reports on the performance of the SEU. Therefore, the Advisory Board is solely relying on self-reporting by the SEU, relative to goals achieved. The final audit report for FY11 has been received by DDOE; however, the Board has not received the report, to date. In addition, the audit for FY12 is not available. DDOE is currently reviewing the FY11 audit report and will be sharing the results with the Board and the Council of the District of Columbia. It is important to note that in formal testimony before the Council of the District of Columbia on November 2, 2012, DDOE provided

that the overall results of the audit indicate no material weaknesses in the internal controls over financial reporting.

While the Evaluation, Measurement and Verification review has not been completed, the framework has been designed to provide an overview of the processes and procedures for conducting this important review for FY12. Early findings by the contractor, Tetra Tech, indicate that the energy efficiency portfolio of programs, offered by the DC SEU, are based on industry-tested designs that normally take between one to three years to mature. In addition, according to the DDOE, the contractor also noted that the majority of the energy savings are expected to be derived from the installation of high efficiency lighting measures, as is typical and effective for new portfolios and the SEU has appropriate quality assurance/quality control and follow-up procedures in place. Tetra Tech also reported that little emphasis had been paid to the gas customer. This must be remedied if the legislation continues to fund the SEU with both gas and electric ratepayer funds.

III. Performance of the Sustainable Energy Utility in Fiscal Year 2012

A. Overall Performance of the Sustainable Energy Utility (“SEU”)

The DC SEU has set forth that it has balanced its goal of saving energy with that of local economic development and job creation. They highlight that the goals to improve energy efficiency in low-income communities created more than 50 green jobs; and established a solid foundation for future growth of the District’s green economy. The Advisory Board examined the performance of the SEU using available information on identified metrics (listed in #2). As stated, job creation was demonstrated to be successful. It is difficult to substantiate the assertion that the goal of saving energy was balanced with job creation and economic development. There is no stated agreement of what that balance should be; and this is addressed further below. There is also no reliable performance measure for creation of a foundation for future growth of the District’s green economy, and this assertion should be explored in greater depth since it encapsulates a highly desired outcome.

The SEU has made important progress establishing core program areas for meeting its energy – and job creation – goals. There are unanswered questions of how priorities are established, how programs will be adjusted to improve performance in areas where goals were not met, and the significance of statutory and contractual conditions in driving sub-optimal outcomes. The SEU contains many moving parts. Monitoring the SEU is a major task without having the independent audit information available in time to report to the Council. In this year’s report the Advisory Board offers some observations, and hopes to identify the important questions that should be answered in the coming year.

B. Benchmarks (Overview)

The DC SEU is a performance-based contract that contains a broad array of performance benchmarks and other contract requirements.

Clean and Affordable Energy Act of 2008:

- Reduce per-capita energy consumption
- Increase renewable energy generating capacity
- Reduce growth in peak demand
- Improve energy efficiency of low-income housing
- Reduce growth of energy demand of largest energy users
- Increase number of green collar jobs

DC SEU minimum contract requirements:

- Fully expend annual allocation from the Sustainable Energy Trust Fund
- Use Certified Business Enterprises for at least 50% of dollar that are spent using Implementation Contractors
- Spend on electric and natural gas efficiency programming in proportion to the revenues from each of those utility ratepayer sources.

C. SEU Contractual Obligations, relative to the established benchmarks (nearly meet, meet or exceed the established benchmarks)

Programming designed to achieve the performance thresholds for any of these performance goals and requirements will compete for achievement against the other goals to a greater or lesser degree. The Advisory Board has recognized from the beginning of the SEU RFP development that the statutory goals are not all necessarily aligned to be mutually reinforcing, and in fact may in some cases be antagonistic. The establishment of explicit priorities for the SEU was not within the Advisory Board's reach. By default, the SEU has established its own by virtue of meeting some goals and failing to meet others. This may be something that the Council wishes to flag for discussion with the Executive. Since it was not set as an objective for the Advisory Board, the Board has made no recommendations on how to prioritize the goals.

The SEU offers in its 2012 annual report this example of how meeting the goal of improving the efficiency of low-income housing is generally achieved at a relatively high cost per megawatt-hour or therm, because low-income residents typically are not able to pay for a substantial share of the cost of improvements.

The contract spending requirement for improving low-income housing means that fewer dollars are available for use in other program areas where the DC SEU could achieve higher energy savings at lower costs. Thus, more funds allocated for improvements in low-income housing means fewer dollars available for custom commercial projects—which deliver high energy savings and contribute significantly to reductions in per-capita energy consumption, reductions in the growth of peak demand, and reductions in the growth of demand from large energy users (SEU 2012 Annual Report).

This table appears in the SEU 2012 Annual Report. Items 1a-9b are discussed briefly below.

Table 1. FY 2012 Performance Benchmarks and Minimum Requirements

Category	Item	Name	Metric Unit	Minimum Performance Benchmark	FY 2012 Results ¹
Performance Benchmarks	1a	Reduce per-capita consumption - Electricity	MWh	45,746	24,504
	1b	Reduce per-capita consumption - Natural gas	Mcf	120,000	6,254 ³
	2	Increase renewable energy generating capacity	Verify program cost-effectiveness	Design a cost-effective replacement program to the District's Renewable Energy Incentive Program	DC SEU contracted for the installation of 54 solar photovoltaic systems, providing 26 kW of generating capacity at a cost 24% less than retail, and societal benefit-cost ratio of 1.12 : 1.
	3	Reduce growth in peak demand	kW	2,000	3,732
	4	Improve energy efficiency in low-income housing	% of annual budget	\$ 2,640,000	\$ 4,805,199
	5	Reduce growth in energy demand of largest users	Verify completion of study of largest energy users	Complete report of DC largest energy users	Report submitted to DDOE on September 30, 2012
Minimum Requirements	6	Increase number of green collar jobs	The number of hours directly worked by DC residents, earning at least a Living Wage, on DC SEU activity; 2,080 hours = 1 green job	109,824	112,320 ⁴
	7	Expenditure of annual SETF dollars allocated to DC SEU services	Fiscal year dollars	\$13,800,000 ²	\$ 13,796,448
	8	Expenditures with Certified Business Enterprises	50% of expenditures on Implementation Contractors	\$ 2,623,293	\$ 4,489,103
	9a	Annual expenditures related to electric energy efficiency	Program expenditures allocated to energy efficiency and / or renewable energy activity that reduces electrical energy consumption	\$ 7,920,000	\$ 13,071,187
	9b	Annual expenditures related to natural gas energy efficiency	Program expenditures allocated to energy efficiency and / or renewable energy that reduces natural gas consumption	\$ 1,980,000	\$ 725,261

¹ Results to be verified through DDOE's evaluation, measurement, and verification contractor.

² DDOE increased the FY 2012 annual budget by \$600,000 through a reallocation of SETF dollars.

³ Represents the Mcf savings for gas efficiency measures installed. Total aggregate annual gas savings are negative (-5,562 Mcf) due to waste heat adjustment from the installation of energy-efficient lighting measures.

⁴ Estimate subject to final verification of green job hours.

1a & 1b – The SEU did not meet the minimum performance benchmark for reducing per capita consumption of electricity and natural gas. For electricity, only 53% of the goal was realized, for natural gas, only 5%.² This is one of the more outcome oriented indicators, and a key objective for the SEU. Significant gains should be expected for 2013, and a strong trend-line toward achieving the minimum performance within this contract period. The Board recommends that no incentive payment be made to SEU when it fails to meet a performance benchmark.

2 – The SEU reported an increase in renewable energy generating capacity in fiscal year 2012. Is the program cost-effective? A more thorough evaluation of the program's cost-effectiveness as compared to comparable programs would be necessary to provide a well substantiated assessment. The program does leverage the federal tax credits, SRECs and investor funds, and interestingly achieved a reported societal benefit test ratio of 1.12:1, which is unusually high for photovoltaic generating systems. That many of the systems were installed in low or median

² Representatives of Washington Gas met with the SEU on a regular basis to support the SEU both with respect to the authorized exchange of customer data and the development of cost effective gas efficiency programs. The SEUAB also encouraged the SEU to address this issue. Washington Gas suggested several programs to the SEU to assist the SEU its statutory mandate. Despite this effort the SEU was unable to meet the mandate for the expenditure of 75% of gas customer funds for gas programs.

income communities should be viewed as a substantial achievement for the SEU. Again, independent verification has not been provided, and thus these findings are preliminary.

3 – The SEU reports that it exceeded the goal for reducing growth in peak demand by 80% (total 180%). This is another of the important outcome oriented indicators, and the success here in light of underperformance in 1a & 1b is difficult to explain. The Sustainable Energy Utility Advisory Board needs the independent Evaluation, Measurement and Verification to analyze this inconsistency.

4 – The SEU reports that it exceeded the goal for improving energy efficiency in low-income housing by 82% (total 182%). The performance measure for improving energy efficiency in low-income housing is an administrative measure, meaning that *activity* is measured rather than *outcome*. The measure for this performance indicator should be linked to measures such as per capita consumption or average low-income home energy bills, which would be better outcome indicators. The Sustainable Energy Utility Advisory Board needs the independent Evaluation, Measurement and Verification to analyze this conclusion and cannot support it without that analysis.

5 – This performance measure has not yet been identified. The SEU & DDOE are defining “largest user/s” and designing programs to be responsive. The Sustainable Energy Utility Advisory Board expects this dimension of programming to become functional in 2013.

6 – The SEU reports that it exceeded the target for increasing the number of green collar jobs by 2% (total 102%). This is with respect to energy conservation and efficiency an administrative indicator that does not measure outcome. However, the District has made green jobs a high priority for the SEU, and if this has been achieved it is laudable. The Sustainable Energy Utility Advisory Board needs the independent EM&V to analyze this conclusion and cannot support it without that analysis.

7– The SEU reports that it essentially met the target for spending SETF funds on SEU related activity (total 99.9%). Without having achieved the goal of achieving energy consumption savings or met the goal of providing a specific level of programs to the gas and electric sector, the Advisory Board cannot applaud this accomplishment.

8 – The SEU reports that all expenditures were with District Certified Business Enterprises, exceeding the minimum requirement by 71% (total 171%). This too, is an administrative indicator as #6; and it’s likely a record in the District of Columbia for a program as large as the SEU. The success in meeting this performance measure is laudable.

9a & 9b – The SEU reports that it exceeded the goal for annual expenditures on electricity programs by 65% (total 165%), but under-spent on gas programs by 64% (total 36%). An argument could be made that overspending on electricity related programs by 65% (9a) should yield considerably more than the 53% achievement recorded in 1a. For natural gas, the program under spent by 64% and only achieved 5% of the goal for 1b. This does not paint a picture of an efficient outcome and is contrary to the statutory requirements. This cannot be repeated in future

years without drawing into question whether gas customers should be contributing funds for the SEU.

The SEU 2012 Annual Report provides a discussion of the key performance measures and no further detail is provided.

D. Expenditures- Assessment of Annual Expenditures and Funding Allocation

Table 4. FY 2012 budget and actual expenditures

	Annual Plan Budget for FY 2012 ¹	Adjusted FY 2012 Budget Forecast ²	Actual FY 2012 Expenditures
Delivery of Services			
Commercial Initiatives	\$ 4,806,272	\$ 4,588,789	\$ 5,991,341
Residential Initiatives	\$ 2,910,786	\$ 1,207,635	\$ 1,184,849
Low-Income Multifamily Initiatives	\$ 3,173,451	\$ 3,984,798	\$ 2,103,141
Renewable Energy Initiatives ³	\$ 350,958	\$ 702,347	\$ 1,064,284
Administration, IT, Compliance, and Workforce Development			
Administration ⁴	\$ 820,929	\$ 1,657,863	\$ 1,959,894
Information Technology	\$ 624,715	\$ 635,717	\$ 517,731
Compliance	\$ 369,672	\$ 381,264	\$ 318,135
Workforce Development	\$ 143,217	\$ 641,587	\$ 657,073
Total	\$ 13,200,000	\$ 13,800,000	\$ 13,796,448

¹ Filed with DDOE in December 2011.

² Budget forecast revised in July 2012 to accommodate expanded activity.

³ In FY 2012, services for renewable energy measures were provided only to low-income-qualified residents.

⁴ Administration comprises general management, financial management, DCSEU contract management, and operation-wide expenditures including facilities, insurance, and supplies.

Source: DCSEU 2012 Annual Report

Table 5 - DC SEU FY 2012 Budget - Direct and Support Services Costs

	Budget	%
Direct Services		
Program & Technical Services	\$3,532,010	27%
Direct Installation Services	\$3,333,811	25%
Financial Incentives to Customers	\$1,726,702	13%
Marketing	\$749,932	6%
Customer Service	\$87,750	1%
Public Affairs	\$279,703	2%
Program Planning	\$204,868	2%
Workforce Development	\$616,910	5%
Compliance	\$366,600	3%
3rd Party Financing	\$96,350	1%
Administration	\$2,205,365	17%
Total	\$13,200,000	100%

The SEU Advisory Board has unanswered questions regarding the sometimes substantial changes to the budget for programmatic “delivery of [direct] services” and other support services that are presented in Tables 4 & 5. It is reasonable that the first full year of programs will yield surprises, and that adjustments are inevitable. However, the sheer size of some deviations begs a more thorough explanation.

Source: August 20 PowerPoint update to the SEU Advisory Board

Renewable power and workforce development both saw 300% adjustments. The budget for administration more than doubled. The SEU explains that expenditures for Commercial initiatives were \$1.4 million higher than budgeted (25%) due to in part the higher-than-expected enrollment in the T12 Replacement initiative. This program is discussed in greater detail below, as relevant to the discussion of single year budgeting and performance evaluation. Generally, the

Advisory Board finds the substantial shifts in budget to be poorly explained. While individual shifts each have a justification, the degrees to which these shifts occur suggest a systemic problem that has not fully been brought to light. A major determinant of decisions that result in these substantial budget shifts may be the necessity of spending down the year's budget however that can best be expedited. There is strong reason to suspect that this is an issue for the SEU, as discussed below. Finally, despite quite extensive records in some activity areas, it is still not entirely clear to the SEU Advisory Board what the breakdown is between administrative and overhead costs, and actual implementation expenditures. There is always the logical desire to see more implementation with less administration – but recognition that *good administration* is an essential component of success. The Advisory Board sees no sign of extreme imbalance, but the Advisory Board desires to better understand how administrative costs are accounted and justified, and how they are distinguished from technical services.

E. Board Assessment/Evaluation of the SEU's performance

The Sustainable Energy Utility Advisory Board is unable to reach consensus with respect to the SEU's performance without the EM&V report. The SEU began its year continuing the "quick start" programs from FY 2011, and ended with a full roll-out of program initiatives spanning a range of energy efficiency and renewable energy solutions for homes, businesses, institutions, and communities. The programs were reportedly designed systematically, based upon a comprehensive market analysis, specifying necessary program rules and procedures, marketing plans, enrollment forms, and technical procedures and tools.

The incentives of a performance-based contract allows for latitude in adapting plans to meet changing conditions, especially in the context of meeting activity milestones and performance metrics. The SEU's "market-based programming" is a process of introducing initiatives, gauging market reaction and making adjustments to optimize efficient outcomes; and is considered a reasonable approach. The SEU identifies "market-based programming" as, largely, the reason the final budgets for projects deviated so substantially from initial budget projections. However, there is another driver that may also be significant in explaining the deviations which will be discussed further in the section below.

Problems with Annual Budgeting & Performance Review

The SEU's "market-based programming" is mitigated by two key conditions that are built into the contract: annual budgeting (an artifact of annual review and renewal of the contract option) and annual performance appraisal. Annual budgeting is necessitated both by the anti-deficiency act and by the performance requirement in the contract obliging the SEU to spend down that entire year's budget. Closely associated with this requirement are performance indicators that also are tied to the 12 month cycle. Annual budgets and annual performance requirements are proper and appropriate. However, the way that they have been implemented drives some less than optimal outcomes for the SEU. Presently, annual performance – as a function of the full year's budget expenditure, must be evaluated and found acceptable for the renewal of the contract in the following year. Consequently, all projects that are to be considered as contributing to the favorable outcome for the year need to be closed out in that same year. Work conducted (i.e. money spent) to put projects "in the pipeline," or larger projects that might

require multiple years of substantive investment to realize, don't contribute to the favorable performance of the SEU in a *that year's* performance review. There is consequently a penalty associated with projects that exceed the fiscal year's period because although the money may be spent in FY12, if the results don't materialize until FY13 then the FY12 money spent does not have a matching "outcome," and that will reduce the SEU's performance indicator/s for that year. Because the large scale, deeper, more cost effective energy retrofits typically do require more than a year to realize, this most desirable area of the market is disadvantaged. Other types of commonly used incentives are also penalized, such as loan guarantees or low/no interest loan funds.

Illustrative is the SEU's Comprehensive Low-Income Multifamily Initiative to improve energy efficiency of buildings at the time of construction or rehabilitation. New construction and major rehabilitation are excellent opportunities for deep, comprehensive and lower-cost energy efficiency in housing because building systems are open and are already being upgraded. The SEU identifies a "major hurdle" to this initiative as the long development period for construction and rehabilitation projects—typically two to four years. The SEU recognized that it would be able to provide services only to a few projects that would complete during FY 2012. Ideally, the SEU would heavily invest in projects that will complete in out years, but this highly cost-effective and efficient practice is effectively discouraged by the strict annual budgeting and performance appraisal.

The other problem associated with annual budgeting and performance appraisal is what has been characterized as a "hockey stick" pattern of budget expenditures over the course of a year. Expenses begin at zero and slowly ramp up through the second quarter, quickening in the third and maxing out in the fourth as the SEU spends down every last dime of its budget, since there is no provision for carrying over the balance. From the information provided to the Advisory Board by the SEU, the bulk of implementation program expenditures occurred in the last two months of the fiscal year. This creates a spike in resource expenditures and staff effort, both internally, and by the SEU implementation contractors that lead to a frenzy of activity that can result in controls not being properly considered. This approach causes inefficiencies that might be avoided if some means to smooth out budget spending can be designed, but it seems difficult to mitigate. The Advisory Board has met with the SEU and the DDOE to discuss this problem, and while it's not being ignored, there are no easy solutions.

Possible inefficiencies include the SEU's "market based" programmatic decisions to shift from partial to full subsidies for various programs when it became clear that the partial subsidy was not going to spend down the budget by the year's close out. One specific example is the "oversubscription" of the T12 to T8 program. The T12 to T8 program began with a partial subsidy, which given the looming deadlines and contract requirements garnered little support in the market. Faced with a program that was not performing – thus not drawing down funds, the DCSEU offered a revised program in early summer that offered 100 percent subsidy on these lighting efficiency programs (i.e. FREE). Between the implementation contractors existing list of clients and deals prospected and SEU account management activity, there was a very large response to this offer. This forced the SEU to prioritize projects into Tiers, (1, 2, and 3). Tier 1 projects had to get done by the September 30th deadline. Then, shortly after this Tier list came out, a Tier 1.5 was added. This represented projects that had to get done but could not be billed

until the new program year. With respect to Tiers 2 and 3, those are clients who were promised lighting retrofit projects by the SEU but now are in a holding pattern while they waited for the DCSEU's plans for this work in FY2013. The SEU appears to have promised to do more projects than which they had funding. As of October, implementation contractors did not know what the 2013 SEU program for this type of work would look like.

On the other hand, one of the benefits of the 2012 close-out "blitz" of work is an increasing awareness in the market place of the significant benefits from the work performed. The key now is for this work not to be totally discontinued and for a void to exist as this will provide a chilling effect on market acceptance and interest. The blitz approach also brings along challenges to small firms, from compliance to cash management, all required and important but much more difficult and critical with such a spike in work and without a clear understanding of what programs are to continue in the subsequent fiscal years. This approach also stressed the DCSEU's resources, including the "crashing" of its compliance system which caused a great deal of re-work for firms.

A significant level of record-keeping

The degree of record keeping and performance measurements required by the SEU to demonstrate its success is without any question at the burdensome end of reporting. For example, the contract metric for green collar jobs requires full documentation of each hour worked on DC SEU activity. To require this from contractors who are unaccustomed to this level of review drives up costs for both the contractor and the DC SEU, and may act as a deterrent to contractors' participation in DC SEU programs. However, there is no disputing that the SEU is bureaucratic by design in this respect. To what extent this will also diminish the innovation and market based advantages that we desired from a contract-based private sector program is not known. As the program matures, this is an issue that should be periodically revisited to assess if and where less bureaucratic oversight might lead to improved performance.

Job Creation & District of Columbia Hiring

The SEU reported that it has met its benchmark for job creation in 2012, and should be recognized for the hiring of District residents-100%. This is an important performance criterion that the SEU has fully internalized. Overall, the SEU's focus on hiring District residents and CBE preference for implementation contracting is exemplary, and a model for other programs and contracts in the District of Columbia.

Outreach and Marketing

Outreach to District businesses and associations was extensive. This success was tied to the SEU's effort to meet District hiring goals. The SEU representatives made appearances throughout the District of Columbia at events; through sustainability offices of local universities; by attending civic and citizen association meetings; and by making direct contact with businesses, churches and service organizations through SEU partnering organizations. Resources expended in this area were significant. The SEU has provided that it has "established a solid foundation for future growth of the District's green economy." Creating awareness and then

enthusiasm for energy efficiency and renewable energy within churches builds awareness and trust in congregations. Building awareness and enthusiasm for photovoltaic installations in low cost housing in Wards 7 & 8 shows commitment to city-wide inclusiveness and establishes not only good will, but palpable excitement for what the SEU can bring when citizens partner to achieve shared goals. This sort of tactical groundwork is not a SEU performance measure, but shines as brilliant, calculated strategic management by the SEU. The Advisory Board acknowledges this, and hopes to see it leveraged for quick improvements in the SEU's performance measures in the following years.

Evaluation, Measurement and Verification (EM&V) of energy efficiency programs

A committee of the Sustainable Energy Utility Advisory Board met several times in 2012 to advance discussion of the SEU's EM&V program. There are three important issues associated with EM&V that were flagged by the Advisory Board. 1) Disentangling energy improvements attributable to the SEU programs from other District, federal and independent initiatives; (2) establishing "ownership" of efficiency improvement so that they can be bid into the PJM auction for efficiency improvements and thus create a revenue stream back to the SEU to support programming; and (3) coordinating EM&V improvements from across District programs and agencies to provide a comprehensive EM&V of DC-based energy efficiency improvements. Advisory Board members discussed aspects of the EM&V effort with the District contractor providing this 3rd party service to the SEU, with officials at PJM, and with experts employed with VEIC (the SEU contractor) who have negotiated such deals for Vermont with the wholesale energy grid in their region. At this time, it seems that the best path forward is for the SEU and the 3rd party EM&V contractor to establish a base-line of knowledge about the SEU programs and further evaluate the costs and benefits of developing sufficient reporting data to bid into the PJM auction. The contractor for the DC Comprehensive Energy Plan should engage the SEU and other DC initiatives such as PACE, to chart a strategic path forward for thorough integration of all DC energy efficiency programs under a single EM&V reporting structure. This will address all three of the EM&V issues flagged by the Advisory Board.

Structure of the SEU and the SEU Advisory Board

The Sustainable Energy Utility Advisory Board has discussed issues pertaining to its own function, as well as that of the SEU. Several Sustainable Energy Utility Advisory Board members have expressed concerns with the Sustainable Energy Utility Advisory Board being chaired by the Director of the District Department of the Environment. The Board is required, by statute, to provide advice, comments and recommendations to the DDOE and the Council of the District of Columbia. Certain members are of the opinion that this potentially creates a conflict of interest and that the executive should review this appointment to determine whether or not it creates true as well as perceived conflicts when the role of DDOE, relative to the SEU contract, and the Board's responsibility, relative to DDOE. The Chair of the Sustainable Energy Utility Advisory Board is not in agreement with this recommendation.

Currently, the SEU exists entirely as a contract to VEIC and the DC Sustainable Energy Partnership. Were the contract not renewed due to poor performance of the contractor, there would effectively be no SEU until such time as a new contract were competed and awarded – at

best, a six month process. Beyond DDOE's staff, there would be no institutional memory of the SEU's success or failure. Clearly, this would be disruptive. Similarly, contacts with program vendors – District CBEs are held by a contractor that has no certainty of existence beyond the current fiscal year. All "SEU" financial and business relationships exist with the contractor. The SEU Advisory Board Committee on Structure and Finance has met several times to discuss this circumstance. Other states with SEUs have established "shell institutions" that effectively house the SEU contract within a dedicated organization, such as a non-profit, that enables the perpetuation of SEU programs as contracts may come or go. This structure allows for continuity of effort and reduces the potential for disruption. It also permits for longer term contractual associations such as would be necessary to bid SEU energy efficiency into the PJM energy efficiency auction. Creation of such an entity would require an amendment to the CAEA statute. The Advisory Board is not prepared to make any recommendations on this at present; however, it will remain a subject for discussion by the SEU Advisory Board Committee on Structure and Finance.

IV. Conclusion

The Sustainable Energy Utility Advisory Board is comprised of a diverse group of individuals that are committed to the success of the Sustainable Energy Utility. The majority of the Advisory Board members have been serving the District of Columbia government, in this capacity, since the SEU's inception. These dedicated members have assisted in the initial phases of development and actual implementation of the SEU. The Board is pleased to have the opportunity to report on the performance of the SEU in its first full operational year to the District Department of the Environment and the Council of the District of Columbia. The Board recognizes its statutory responsibilities and understands that the recommendations contained within this report are purely recommendations for consideration. However, we encourage the District of Columbia Department of the Environment, the Council of the District of Columbia and the SEU to give great weight to these recommendations. Significant thought and consideration has been undertaken in identifying the most critical and important areas for review. As noted in the executive summary, the SEU Advisory Board is in a very unique position of having to report on the performance of the SEU, without being able to independently verify the information that has been reported by this entity. Therefore, the Advisory Board is relying exclusively on self-reporting made by the SEU. Notwithstanding this, the Advisory Board does recognize the reported accomplishments of the SEU.

While the Board has set forth several recommendations in the executive summary, the Board would like to re-emphasize the importance of the SEU meeting all of its performance benchmarks and expending resources, as prescribed by the Clean and Affordable Energy Act of 2008. To that end, the Board will continue to monitor the activities and programs of the SEU to ensure that an appropriate plan is in place to meet the statutory benchmarks and minimum performance requirements as set forth in the Act in Fiscal Year 2013.

APPENDIX

Programs Implemented by the Sustainable Energy Utility

A. Overview (Programs, Program Selection Criteria, Program Evaluation Criteria)

The DC SEU shifted from direct installation programs to market based programs during FY 2012 and developed the following market-based initiatives to serve all District customer groups:

1. Commercial and Institutional Custom, launched second quarter FY 2012

Targeted customers are businesses and institutions that use more than 500 MWh per year. The program goal is to reduce both energy consumption and demand by large commercial and institutional users. In FY 2012, there were 39 projects with reduced energy consumption of more than 8,450 MWh and reduced energy demand of 1.22 MW.

2. Business Energy Rebates, launched third quarter FY 2012

Targeted customers are small businesses and institutions replacing equipment and businesses with inefficient T12 lighting. Program goals are to promote the installation of efficient equipment through rebates for qualifying purchases; increase CBE activity and employment through the fully supported T12 Replacement initiative

3. Low-Income Multifamily Comprehensive, launched third quarter FY 2012

Targeted customers are developers and residents of low-income housing. The program goal is to improve energy efficiency of buildings at the time of construction or rehabilitation through technical assistance and incentives; 5 rehabilitation projects involving 348 apartments were completed in FY 2012; 12 projects with more than 1,000 units were enrolled in the program for FY 2013.

4. Leveraging Low-Income Housing Opportunities

Collaboration with agencies serving low-income homeowners and renters to provide energy efficient products and services (Further development and launch of this initiative were delayed and resources were deployed on other initiatives).

5. Home Performance with ENERGY STAR, launched fourth quarter FY 2012

Targeted customers are owners of single-family homes. The program goal is to reduce energy use and costs by air-sealing and insulating the structure and installing efficient lighting and appliances. In FY 2012, 60 audits were completed and the program was

approved for implementation by the U.S. Department of Energy; implementation contactors were recruited and trained.

6. Efficient Products, launched fourth quarter FY 2012

Targeted customers are District residents who are renters and homeowners. The program goal is to increase the availability and sales of reduced-price energy-efficient light bulbs; 39 retailers enrolled, more than 43,000 efficient light bulbs were sold in FY 2012.

In addition to the market-based programs, DC SEU implemented the following programs:

7. DC Home Performance for Low-Income Homeowners

Targeted customers are low-income owners of single-family homes. The program goal is to provide leveraged resources to help low-income homeowners reduce their energy use and costs. A participating bank was identified that committed to the initiative; 80 households qualified for services

8. Food Bank Distribution of Efficient Products

Targeted customers are low-income District residents. The program goal is to reduce energy costs for low-income residents. Over 42,000 light bulbs were distributed through District food banks.

9. Low-Income Multifamily Direct Product Installation

Targeted customers are low-income multifamily housing owners and residents. Program goals are to improve energy efficiency for low-income residents and building owners; increase CBE spending and green job hours. In FY 2012, 3,834 low-income households were provided with energy-saving lighting and hot water products.

10. Small Scale Solar Initiative

Targeted customers are low-income residents in Wards 7 and 8. The program goal is to install photovoltaic solar systems to reduce the energy costs of low-income residents of Wards 7 and 8. In FY 2012, 54 installations were completed with estimated total energy savings of more than 184 MWh; installations and savings were leveraged using solar renewable energy credits.

B. Key Achievements/Successes (evaluation tools implemented to track success):

- Launched Market-Based programming (see programs 1-6 above)
- Increased the DC SEU's Visibility and Impact through increasing its presence at events, developing new advertising campaigns, completed brand and market research, and developed targeted messaging for each initiative
- Expanded the level of Customer Support and Education and developed aids for Customer Support Specialists to ensure consistency in messaging
- Improved information technology and management information systems
- Developed protocols to profile and report the impacts of energy efficiency and renewable energy activities
- Recruited a workforce that could be developed for future sustainable energy jobs, including the recruitment, training, hiring and mentoring of Retail Account Managers, Events Staff and Project Assistants.

C. Lessons Learned (e.g., market-based approach in first full year, spending patterns)

Based upon its experience, the DC SEU made the following observations about market-based programming.

- Building up market-based programming is a long process of action by the DC SEU
- Behaviors that drive purchase decisions do not change overnight
- In some cases with market-based initiatives, many of the targeted points of purchase or decisions might be years in the future.
- Market-based systems need time to gain footholds from which they can build momentum and eventually transform the market to one that values efficiency as a regular part of daily life or business.

The DC SEU also identified additional challenges. Specifically,

- The contract spending requirement for improving low-income housing means that fewer dollars are available for use on other programs where the DC SEU could achieve higher energy savings at lower costs.
- Following up with contractors to ensure they provide full documentation for each green collar job, and who are unaccustomed to this type of requirement, drives up programming costs both the contractor and DC SEU.

D. Allocated Funding

The original allocation from the SETF was \$13.2 million. This was increased by \$600,000 midway through FY 2012 when DDOE completed the contracting process for evaluation, measurement, and verification, and was able to reallocate unused resources. Actual expenditures for Services, Administration, IT, Compliance, and Workforce development were as follows for FY 2012:

Commercial Initiatives	\$5,991,341
Residential Initiatives	\$1,184,849
Low-Income Multifamily Initiatives	\$2,103,141
Renewable Energy Initiatives	\$1,064,284
Administration	\$1,959,894
Information Technology	\$ 517,731
Compliance	\$ 318,135
Workforce Development	<u>\$ 657,073</u>
TOTAL	\$13,796,448

E. Role of subcontractors

A total of 43 Certified Business Enterprises (CBEs) participated in DC SEU activities in FY 2012. DC SEU spent \$4,489.103 on CBEs in FY 2012 and exceeded its minimum contract requirement of 50% expenditures on Implementation Contractors by 60%. The DC SEU issued 13 requests for proposals (RFP) and requests for qualifications (RFQ) to solicit the services of CBEs in FY 2012; 51 CBE vendors responded to the RFPs and RFQs.

Summary of Quarterly Reports Submitted (FY 2012)

(a) First Quarter

The First Quarter Report presents the results of completed work from FY 2011 and outlines the design and implementation work under way with new programming in the various market sectors. The reporting period coincided with the phasing out and ramping down of the Quick Start program of FY 2011, therefore, no information about activity milestones is presented. The report instead summarizes (1) completion of the Quick-Start programs and their results; (2) progress on the design and implementation of the first round of new programming for the markets in Low-Income Multifamily, Commercial and Institutional, Single-Family Residential, and Renewable Energy sectors; and (3) ongoing market analysis, public affairs activity, consumer education and marketing efforts, community outreach activity, and workforce development.

Statistics for the Quick-Start programs are as follows. For the **Low-Income Multifamily Quick-Start Program**, the DC SEU completed installing energy efficiency products in a total of 982 units by December 30, 2011. Under the **Small Commercial Direct Installation**, the DC SEU completed installing measures in 105 businesses by December 30, 2011. Under the Existing Single Family Homes program, the DC SEU installed small scale retrofit energy efficiency measures in 1,554 single family existing homes by December 30, 2011.

Renewable Energy. Under the **Commercial Solar Hot Water** program, 1,837 units were served by FY 2011 that involved 2189 collectors. For residential units with **rooftop PV projects**, 15 residential units were served in FY 2011 and had installed a capacity of 74.094 kW.

The DC SEU also developed program proposals for all customer sectors and submitted them to DDOE for FY 12 implementation.

(b) Second Quarter

The DC SEU characterized the Second Quarter activity as building on the First Quarter's shift to higher impact market based approaches from the lower impacts of direct installation work as one of deep training of new staff in state-of-the-art, comprehensive energy efficiency program implementation. DC SEU implemented the Low-Income Multifamily Comprehensive Program and the CLEER T12 Lighting Replacement Programs in the Second Quarter and continued developing proposals for implementation in FY 12. The DC SEU described workforce development activity as fluid.

(c) Third Quarter

The DC SEU focused on program development, workforce development, and action supporting a strong Fourth Quarter conclusion to FY 2012 during the Third Quarter. To meet its contract Performance Benchmarks for FY 2012, the DC SEU revised its strategy of delivering service by market based initiatives only by adding direct installation services to District business and residential utility customers. This "extended grand opening" was temporary and called Plan B. Plan B services were incorporated in the CLEER T12 Lighting Retrofit program for low-income households; Low-Income Multifamily Direct Installation of lighting and other retrofit measures; and CLEER T12 Lighting Retrofit for Commercial and Institutional customers. The DC SEU identified the development of an Annual plan for FY 2013 as the other cornerstone of Third Quarter activity. According to the DC SEU, the Annual Plan will reflect input from stakeholder meetings, will place more emphasis on workforce development, community engagement, and renewable energy development, and is built on a foundation of a larger staff more fully trained in energy efficiency and renewable energy service delivery.

Program implementation had occurred to a sufficient degree in the third quarter such that DC SEU could provide numbers on the status of projects in the pipeline (those in the early stage of

project development) and projects in progress (cases in which a customer agreement was under development or had been obtained), as follows.

- **Commercial & Institutional**—By the end of the Third Quarter, there were 192 C&I pipeline projects and 49 projects in progress for a total of 241 projects.
- **Low-Income Multifamily**—By the end of the Third Quarter, there were 86 pipeline projects and 20 projects in progress for a total of 106 projects.
- **Residential**—By the end of the Third Quarter, there were 43 pipeline projects and 35 projects in progress for a grand total of 56 projects.
- **Renewable Energy**—By the end of the Third Quarter, there were 96 pipeline projects, no projects in progress for a total of 96 projects.

The Third Quarter Report also shows estimated electricity savings, program core area and initiative, to date and estimated natural gas savings, by core area and initiative to date. The context for the numbers is not clear, therefore the reader does not know what criteria were used to measure the savings or the significance of the numbers presented.

With respect to Workforce Development, the DC SEU addressed four areas of activity during the Third Quarter: supported recruitment of preferred Contractors with more training; supported the identification of Certified Business Enterprises (“CBE”) for DC SEU programming; advanced development of collaborative relationships with the Department of Employment Services’ On-the Job Training program; and prepared a workforce of Data Collection Associates to obtain permission from District residents to release their electric and gas utility energy use data to the DC SEU.

Performance Benchmarks: Green Job performance--the sections in the three quarterly reports about performance benchmarks provides information but none of the reports answers in a summary statement how many green jobs were created in or as of the end of each quarter, how many dollars were spent, or the number of green job FTEs occupied by District residents not earning a Living Wage and earning a Living Wage. The ultimate question, of course, is whether the DC SEU is on target to meet the Performance Benchmarks for Green Job Creation in FY 2012 and that question cannot be easily answered from the information provided answers to these questions.