



**Oregon Business Development Department  
Disbursement Request**

**Project Number:** A11008  
**Project Name:** Solar Feasibility Study (REF)

**Request Number:** 1

<b>For Oregon Business Development Department Use</b>		
Total Amount Approved		
Regional Coordinator's Signature		Date
\$ Amount	Funding Type (Loan/Grant)	Funding Program
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Team Manager's Signature		Date

Solar Feasibility Study  
**FINAL REPORT**

**Narrative on Activities Completed, Executive Summary and Next Steps:**

The City of Medford received and reviewed the final Solar Feasibility Study that was completed by RHT Energy Solutions on January 13, 2011. This study was funded by the grant provided by your organization. This review and acceptance of the report by the Medford City Council completed the activities associated with the grant. The activities included the following:

- Contract with RHT Energy Solutions to complete the feasibility study
- City of Medford staff coordinated with RHT Energy Solutions on reviewing all city-owned sites to determine the feasibility of solar installations at those sites
- RHT Energy Solutions developed a methodology in ranking these sites for possible solar installation
- RHT Energy Solutions completed the solar feasibility study for review and acceptance by the City of Medford

The entire executive summary is contained in the final solar feasibility study, which has been submitted to staff at the Business Development Department. In addition to the executive summary, the final study contains the following sections:

**2.0 Methodology**

- 2.1 Design
- 2.2 Total Solar Access
- 2.3 Mounting Surfaces
- 2.5 Access to Commercial Power
- 2.6 Public Leadership

**3.0 Types of Solar Electric Systems**

- 3.1 Photovoltaic
- 3.2 Building Integrated Photovoltaic (BIPV)
- 3.3 Thermal Solar

**4.0 Where Solar Works**

- 4.1 Solar in the United States
- 4.2 Solar in Oregon

**5.0 Incentives, Tax Credits and Grants**

- 5.1 Incentives
- 5.2 Oregon Tax Credits
- 5.3 Federal Tax Credits

**6.0 Metering**

- 6.1 Net Metering
- 6.2 Feed-In Tariff
- 6.3 Grid Sales Opportunities

**7.0 Power Company Documents**

- 7.1 Interconnection Agreement for Net Metering Facility

- 7.2 Net Meter Application
- 7.3 Net Metering Agreement
- 8.0 Solar Now
- 9.0 Conclusion

**Implementation or Next Steps**

The City of Medford has already implemented the U.S. Cellular Community Park-Lowry Lane Shop solar installation. This installation took advantage of the FIT program offered through Pacific Power. The Parks & Recreation Department acquired three electric low-speed vehicles this past winter. Two of those vehicles are stationed at U.S. Cellular Community Park and their power needs are provided through this installation.

The remaining five primary opportunities listed in the feasibility study are now under consideration for funding and partnership opportunities. The Parks & Recreation and Public Works Departments will be working with a private third party vendor on the possibility of completing some of these installations over the course of the next biennial budget cycle that begins on July 1, 2011.

The Medford City Council has also identified these projects as potential grant applications to both the federal and state department of energy. Staff will be reviewing possible funding opportunities and submit grant applications when appropriate.

**Itemized List of Funding Sources**

The following is the list of funding sources used to pay for expenses associated with this project:

Source	Amount
Business Development Department	\$30,000
City of Medford – General Fund	\$10,011

**Invoices**

The City of Medford is requesting a one-time reimbursement of all funds associated with this grant agreement. The invoices for all work completed by RHT Energy Solutions are attached to this final report and will also be submitted with the proper request form as well.

INVOICE

CITY OF MEDFORD  
FINANCE DEPARTMENT  
411 WEST 8TH STREET  
MEDFORD, OR 97501

(541) 774-2030

TO: OR DEPT/BUSINESS DEVELOPMENT  
775 SUMMER ST NE STE 200  
SALEM, OR 97301-1280

INVOICE NO: 53940  
DATE: 4/04/11

CUSTOMER NO: 105401/376785

TYPE: PR - PARKS/REC CUSTOMERS

QUANTITY	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
1.00	PARKS STATE GRNT BR0050 GRANT REIMBURSEMENT REQUEST Renewable Energy Feasibility Study/Solar Energy Grant No. A11008	30,000.00	30,000.00



TOTAL DUE: \$30,000.00

PLEASE DETACH AND SEND THIS COPY WITH REMITTANCE

DATE: 4/04/11 DUE DATE: 5/04/11  
CUSTOMER NO: 105401/376785

NAME: OR DEPT/BUSINESS DEVELOPMENT  
TYPE: PR - PARKS/REC CUSTOMERS

REMIT AND MAKE CHECK PAYABLE TO:  
CITY OF MEDFORD  
FINANCE DEPARTMENT  
411 W 8TH ST  
MEDFORD

OR 97501

(541) 774-2400

INVOICE NO: 53940  
TERMS: NET 30 DAYS

AMOUNT: \$30,000.00

Solar Grant  
 City of Medford In-Kind Grant Support

Greg McKown

Date	Hours
27-Jul	2
28-Jul	2
9-Sep	5
22-Oct	5
13-Jan	3
Admin	30

Hours 47  
 Rate \$ 41.10  
 Cost \$ 1,931.70

Dobey Elliott

Date	Hours
28-Jul	2
9-Sep	5
22-Oct	5
21-Dec	5
13-Jan	3
Admin	10

Hours 30  
 Rate \$ 45.30  
 Cost \$ 1,359.00

Tom Suttle

Date	Hours
28-Jul	2
13-Aug	2
22-Oct	5
Admin	8

Hours 17  
 Rate \$ 45.30  
 Cost \$ 770.10

Larry McClung

Date	Hours
9-Sep	8
10-Sep	8
Admin	5

Hours 21  
 Rate \$ 39.48  
 Cost \$ 829.08

Brian Sjothun

Date	Hours
29-Jul	2
2-Aug	2
4-Aug	2
13-Aug	1
5-Oct	2
22-Oct	2
21-Dec	2
3-Jan	3
13-Jan	3
Admin	40

Hours 59  
 Rate \$ 72.87  
 Cost \$ 4,299.33

Anne Gordon

Date	Hours
Admin	20

Hours 20  
 Rate \$ 41.10  
 Cost \$ 822.00

Total In-kind  
 \$10,011.21



## PROJECT BUDGET SUMMARY REPORT

**PROJECT NAME:** SOLAR STUDY - BR0050  
**DATE OF REPORT:** 8/20/2010

<b>Total Project Budget:</b>	<b>\$</b>	<b>30,000.00</b>		
<b>Expenses:</b>			<b>% of Total</b>	
Salaries / Employment Expenses:	\$	-	0.00%	
Consulting Services:	\$	30,000.00	100.00%	
Permits & Fees:	\$	-	0.00%	
Materials:	\$	-	0.00%	
Equipment:	\$	-	0.00%	
Payments to Other Entities:	\$	-	0.00%	
Miscellaneous:	\$	-	0.00%	
Incumbrances & Payments to Contractors:	\$	-	0.00%	
<b>Total Expenses:</b>	<b>\$</b>	<b>30,000.00</b>	<b>100.00%</b>	
<b>Project Remaining Balance:</b>	<b>\$</b>	<b>-</b>	<b>0.00%</b>	<b>100%</b>

**EXPENSES:**

**Payroll Expenses:**

Salaries and Wages	\$	-
Overtime	\$	-
Temporary	\$	-
Leave Sellback	\$	-
Life Insurance	\$	-
Health Insurance	\$	-
Workers Compensation	\$	-
Retirement	\$	-
VEBA HRA	\$	-
Social Security	\$	-
Dental Insurance	\$	-
Disability	\$	-
Vision Insurance	\$	-
PERS Pickup	\$	-
Other Payroll	\$	-

**Total Payroll Expenses: \$ -**

**Other Expenses:**

Consulting Services:	\$	30,000.00
Permits & Fees:	\$	-
Materials:	\$	-
Equipment:	\$	-
Payments to Other Entities:	\$	-
Miscellaneous:	\$	-

**Total Other Expenses: \$ 30,000.00**

PROJECT: BR0050-PARKS SOLAR FEASIBILITY		TYPE: MG-SPECIAL GRANT PROJECTS		SUB-TYPE:		STATUS: ACTIVE								
TYPE	CHK#	TRAN DT REF #	VOUCH#	VEND #	BUDGET #	DESCRIPTION	PROJECT-TO-DATE	YEAR-TO-DATE	TRANS AMT	TRANS	ENCUMBERED	ENCUMBERED	FISC YR PERIOD	BALANCE
01-5208-652.51-01	CONSULTING SERVICE	PI0953	30,000.00		30,000.00			30,000.00			.00		2011	.00
AP 170044	02/23/2011 212445				4014 RHT ENERGY SOLUTIONS IN MISC SERVICES			5,689.00			5,689.00		2011	08
AP 169519	02/01/2011 212445	PI0124			4014 RHT ENERGY SOLUTIONS IN MISC SERVICES			15,075.25			15,075.25		2011	08
AP 169519	12/30/2010 212445	PI0130			4014 RHT ENERGY SOLUTIONS IN MISC SERVICES			6,704.50			6,704.50		2011	07
AP 166790	10/01/2010 212445	PI5384			4014 RHT ENERGY SOLUTIONS IN MISC SERVICES			2,531.25			2,531.25		2011	04
EN	08/11/2010 212445				4014 RHT ENERGY SOLUTIONS IN MISC SERVICES			.00			30,000.00		2011	02
					PO ENTRY									
TRANSACTION TOTAL:													30,000.00	.00
01-5208-652.51-07	MISCELLANEOUS				.00									2.00
AP 169358	01/05/2011	005137	2800	BANK OF AMERICA				2.00			.00		2011	07
					COPY PRINTS FOR			2.00			.00			
TRANSACTION TOTAL:													2.00	.00

==== PROJECT: BR0050 ===== P R O J E C T T O T A L S ===== EXPENDITURES: 30,002.00

CLASSIFICATION TOTALS: TRANSACTION TOTAL: 30,002.00 ESTIMATE COMPARISON: 30,002.00 (ACTUAL) SUMMARY TOTAL: 30,002.00



# PURCHASE ORDER

City of Medford, Oregon

411 W. 8TH STREET  
MEDFORD, OR 97501

PAGE: 1

PO: 212445

DATE: 08/11/10

**GRANT NO. A11008**  
**City of Medford/Solar Feasibility Study**

TO: RHT ENERGY SOLUTIONS INC  
2070 RIDGE WAY  
MEDFORD, OR 97504-6349

SHIP TO: City of Medford  
:  
:  
:  
., OR .

VENDOR NO		4014									
DELIVER BY		SHIP VIA		F.O.B.		TERMS					
12/31/10						NET					
CONFIRM BY			CONFIRM TO			REQUISITIONED BY					
			ANNE GORDON			ANNE GORDON					
FREIGHT		CONTRACT NO		ACCOUNT NO		PROJECT		REQ NO		REQ DATE	
				001-5208-652.51-01		BR0050		22293		08/11/10	
LINE NO	QUANTITY	COM	ITEM NO AND DESCRIPTION				UNIT COST	EXTENDED COST			
1	30000.00	EA	PREPARE A SOLAR FEASIBILITY STUDY				1.0000	30000.00			
			SUB-TOTAL					30000.00			
			TOTAL					30000.00			

AUTHORIZED BY \_\_\_\_\_  
AUTHORIZED AGENT

RHT Energy Solutions  
 315 Boardman St.  
 Medford. OR 97501

# Invoice



**PAID**

Bill To
City of Medford 411 W. 8th St. Medford, OR 97501

Date	Invoice #
10/1/2010	100915

Project	Ref. #	Terms
Citywide Solar Feasibil...		Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
		BT-CoM-R0...	R0118	PO212445	Buzz Thielemann - City of Medford - Citywide Solar Feasibility Study, Energy Trust Solarize Medford, and sister city with Portland for Solar America Cities. All funded by successful REFF grant. Per City of Medford P.O. #212445 dated 8/11/10.		
					Progress Billing 7/27/10 through 9/23/10		
7/27/2010	1	BT-CoM-R0...	R0118		Buzz Thielemann - Call Greg McKown with City of Medford regarding report design. Compile property list.	120.00	120.00
7/28/2010	2	BT-CoM-R0...	R0118		Buzz Thielemann - Meet with Greg McKown, Tom Suttle and Dobie Elliott regarding Waste Water Treatment Facility co-gen and solar. They have separate management and funding	120.00	240.00
7/29/2010	1	BT-CoM-R0...	R0118		Buzz Thielemann - Talk to Travis of Pacific Power regarding feed in tariff (FIT) options for City of Medford. everything must compete individually. Add FIT calculations to report design.	120.00	120.00

Thank you for your business. If you have any questions feel free to call. (541) 770-5884

Please send payment to: 315 Boardman St. Medford, OR 97501  
 Fed. Tax ID 93-1219782

<b>Total</b>
<b>Payments/Credits</b>
<b>Balance Due</b>

RHT Energy Solutions  
 315 Boardman St.  
 Medford, OR 97501

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10/1/2010	100915

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Citywide Solar Feasibil...		Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
7/29/2010	2	BT-CoM-R0...	R0118		Buzz Thielemann - Meet with Mike Dyal, Brian Sjothun and Cory Crebbin of City of Medford on projects and funding. Deleted locations with vandalism issues and no commercial power. Management wants locations to make best ROI.	120.00	240.00
8/2/2010	0.75	SD-CoM-R0...	R0118		Larry will be assigned to provide access to locations. Sherry Dowiot - Meet with Brian Sjothun and Buzz Thielemann regarding REFF requirements, phases and reporting.	65.00	48.75
8/2/2010	0.25	SD-CoM-R0...	R0118		Sherry Dowiot - Travel to/from Santo Center for meeting	65.00	16.25
8/2/2010	0.75	BT-CoM-R0...	R0118		Buzz Thielemann - Meet with Brian Sjothun and Sherry Dowiot regarding REFF requirements, phases and reporting.	120.00	90.00
8/2/2010	0.25	BT-CoM-R0...	R0118		Buzz Thielemann - Travel to/from Santo Center for meeting	120.00	30.00
8/4/2010	1	BT-CoM-R0...	R0118		Buzz Thielemann - Set up files for all possible locations: US Cellular Park, Waste Water, Service Center, Fires Stations #6, #8, #3, #2, #5, #4, Front parking garage, Lausmann Annex, Prescott Park, and City Hall. Schedule meeting with Brian Sjothun.	120.00	120.00
8/13/2010	1	BT-CoM-R0...	R0118		Buzz Thielemann - Meet with Brian Sjothun and Tom Suttle on Waste Water Treatment Facility co-gen and solar.	120.00	120.00

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Date	Invoice #
10/1/2010	100915

Project	Ref. #	Terms
Citywide Solar Feasibil...		Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
8/27/2010	0.5	SD-CoM-R0...	R0118		Sherry Dowiot - Emails to/from Brian Sjothun and Buzz Thielemann regarding additional SEP funding that could be available for solar project. Info to be included in report.	65.00	32.50
8/31/2010	0.5	SD-CoM-R0...	R0118		Sherry Dowiot - Work on organizing file information for study. Makes file journals. Marks timeline.	65.00	32.50
9/9/2010	5	BT-CoM-R0...	R0118		Buzz Thielemann - Begin evaluation of City of Medford properties. Larry and Dobie Elliot provide access. Larry identifies locations. Drive to Annex Parking, US Cellular Park and Service Center. First screening of roof surfaces, orientation, and commercial power/meter location.	120.00	600.00
9/10/2011	5	SD-CoM-R0...	R0118		Sherry Dowiot - Make template for evaluation of above properties. Input information. Request power information on each location. Check meter numbers for correct account. Enter power history.	65.00	325.00
9/13/2010	1	BT-CoM-R0...	R0118		Buzz Thielemann - Continue evaluation of City of Medford properties. Begin to determine primary and secondary opportunities. Establishes screening criteria.	120.00	120.00
9/20/2010	4.25	SD-CoM-R0...	R0118		Sherry Dowiot - Continue spreadsheet input. Energy history, orientation, ROI info for both BETC/ETO and FIT.	65.00	276.25

Thank you for your business. If you have any questions feel free to call. (541) 770-5884

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 Fed. Tax ID 93-1219782

<b>Total</b>	\$2,531.25
<b>Payments/Credits</b>	\$-2,531.25
<b>Balance Due</b>	\$0.00

RHT Energy Solutions  
 315 Boardman St.  
 Medford, OR 97501

# Invoice



**PAID**

Bill To
City of Medford 411 W. 8th St. Medford, OR 97501

Date	Invoice #
12/30/2010	101210

Project	Ref. #	Terms
Citywide Solar Feasibil...		Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
		BT-CoM-R0...	R0118	PO212445	Buzz Thielemann - City of Medford - Citywide Solar Feasibility Study, Energy Trust Solarize Medford, and sister city with Portland for Solar America Cities. All funded by successful REFF grant. Per City of Medford P.O. #212445 dated 8/11/10 for \$30,000.  Progress Billing 9/24/10 - 12/31/10		
9/27/2010	6	BT-CoM-R0...	R0118		Buzz Thielemann - work on solar profiles with the following properties: Annex parking, US Cellular Park and Service Center. Determine energy production. Double check with Energy Trust tool. Write in draft form in location workbook.	120.00	720.00
9/27/2010	4	DM-CoM-R0...	R0118		Dave Morris - Site visits for Solar pathfinder evaluations to determine solar access. Runs reports on kWh production throughout the year.	88.00	352.00
10/5/2011	2	BT-CoM-R0...	R0118		Buzz Thielemann - Write updates. Call Brian Sjothun for meeting on format. Call Cascade Lighting on Greenway LED/solar lighting. Not cost effective and not to be included in study.	120.00	240.00
10/11/2010	2	BT-CoM-R0...	R0118		Buzz Thielemann - Research on above locations. Finalize solar worksheet. Get approval from Greg McKown. FIT and BETC payoff in ~ 4.5 years, but FIT has 2-3 times better long-term benefit.	120.00	240.00

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 Fed. Tax ID 93-1219782

<b>Total</b>
<b>Payments/Credits</b>
<b>Balance Due</b>

RHT Energy Solutions  
 315 Boardman St.  
 Medford, OR 97501

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City of Medford 411 W. 8th St. Medford, OR 97501

Date	Invoice #
12/30/2010	101210

Project	Ref. #	Terms
Citywide Solar Feasibil...		Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
10/18/2010	2	BT-CoM-R0...	R0118		Buzz Thielemann - Call City of Portland regarding Solar Now program. Solar Now coordinates between ODOE, ETO, and Portland development. Speak with Lee Rahr who runs Portland program. Invited to Portland to see how program worked. Set up meeting.	120.00	240.00
10/22/2010	2	BT-CoM-R0...	R0118		Buzz Thielemann - Meet with Brian Sjothun and Greg McKown - update on progress. Explains projects that are not cost effective and why (mostly because of roof surface, orientation or shading). Okay with Brian Sjothun and Greg McKown.	120.00	240.00
10/25/2010	2.5	BT-CoM-R0...	R0118		Buzz Thielemann - Revise worksheet and continue report development.	120.00	300.00
11/9/2010	2.5	SD-CoM-R0...	R0118		Sherry Dowiot - Work on primary and secondary opportunity summaries. Log information and time on project. Create DRAFT template of report book.	65.00	162.50
11/9/2010	6	BT-CoM-R0...	R0118		Buzz Thielemann - On-site tour of remaining locations: Fire Stations #6, #8, #3,#2, #5, #4, Front parking garage, Lausmann Annex, Prescott Park and City Hall.	120.00	720.00
11/10/2010	6	BT-CoM-R0...	R0118		Buzz Thielemann - Enter site information on above locations in workbook sheets.	120.00	720.00
12/7/2010	2	BT-CoM-R0...	R0118		Buzz Thielemann - Investment Tax Credit research.	120.00	240.00

Thank you for your business. If you have any questions feel free to call. (541) 770-5884

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Date	Invoice #
12/30/2010	101210

Project	Ref. #	Terms
Citywide Solar Feasibil...		Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
12/20/2010	2	BT-CoM-R0...	R0118		Buzz Thielemann - Enter more site information for Fire Stations #6, #8, #3,#2, #5, #4, Front parking garage, Lausmann Annex, Prescott Park and City Hall.	120.00	240.00
12/21/2010	2	BT-CoM-R0...	R0118		Buzz Thielemann - Meet with Brian Sjothun with updates. Brian requests City Council abridged format and later total study to be included in City of Medford Master Plan.	120.00	240.00
12/21/2010	2	SD-CoM-R0...	R0118		Sherry Dowiot - Meet with Brian Sjothun regarding updates.	65.00	130.00
12/22/2010	2	BT-CoM-R0...	R0118		Buzz Thielemann - Start energy spreadsheets on: Fire station #6, #8, # 3, #2, #5, #4, Front Parking garage, Lausmann Annex, Prescott Park, City Hall.	120.00	240.00
12/23/2010	5.5	BT-CoM-R0...	R0118		Buzz Thielemann - Run energy spreadsheets on: Annex, US Cellular Park, Waste Water, and Service Center.	120.00	660.00
12/27/2010	2.5	BT-CoM-R0...	R0118		Buzz Thielemann - Create ETO solar forecasts and compare to RHT production numbers for: Annex, US Cellular Park, Waste Water, and Service Center.	120.00	300.00
12/28/2010	1	BT-CoM-R0...	R0118		Buzz Thielemann - Continue entry on above locations.	120.00	120.00
12/29/2010	4	BT-CoM-R0...	R0118		Buzz Thielemann - Work on energy spreadsheet on: Fire station #6, #8, # 3, #2, #5, #4, Front Parking garage, Lausmann Annex, Prescott Park, City Hall.	120.00	480.00

Thank you for your business. If you have any questions feel free to call. (541) 770-5884

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 Fed. Tax ID 93-1219782

<b>Total</b>
<b>Payments/Credits</b>
<b>Balance Due</b>

RHT Energy Solutions  
 315 Boardman St.  
 Medford, OR 97501

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City of Medford 411 W. 8th St. Medford, OR 97501

Date	Invoice #
12/30/2010	101210

Project	Ref. #	Terms
Citywide Solar Feasibil...		Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
12/31/2010	1	BT-CoM-R0...	R0118		Buzz Thielemann - Continue work on above locations.  Previously Billed: \$2,531.25 Remaining Contract: \$24,416.75	120.00	120.00

Thank you for your business. If you have any questions feel free to call. (541) 770-5884

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 Fed. Tax ID 93-1219782

<b>Total</b>	\$6,704.50
<b>Payments/Credits</b>	\$-6,704.50
<b>Balance Due</b>	\$0.00

RHT Energy Solutions  
 315 Boardman St.  
 Medford, OR 97501

# Invoice



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Bill To
City of Medford 411 W. 8th St. Medford, OR 97501

Date	Invoice #
2/1/2011	110202

Project	Ref. #	Terms
Citywide Solar Feasibil...		Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
		BT-CoM-R0...	R0118	PO212445	Buzz Thielemann - City of Medford - Citywide Solar Feasibility Study, Energy Trust Solarize Medford, and sister city with Portland for Solar America Cities. All funded by successful REFF grant. Per City of Medford P.O. #212445 dated 8/11/10. P.O. amount = \$30,000. Previously billed: \$2,531.25 + \$6,704.50 = \$9,235.75		
1/1/2011	6	BT-CoM-R0...	R0118		Progress billing: 1/1/11 - 1/18/11 Buzz Thielemann - Determine incentives on the following locations. Enter info into workbook. Update costs on PV panel and determine kW from available sq. feet for: Fire Stations #6, #8, #3, #2, #5, #4, Front Parking garage, Lausmann Annex, Prescott Park, City Hall.	120.00	720.00
1/2/2011	8	BT-CoM-R0...	R0118		Buzz Thielemann - Determine incentives on the following locations. Enter info into workbook. Update costs on PV panel and determine kW from available sq. feet for: Annex parking, US Cellular Park, Waste Water, and Service Center.	120.00	960.00

Thank you for your business. If you have any questions feel free to call. (541) 770-5884

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 315 Boardman St.  
 Medford, OR 97501

# Invoice



**PAID**

Bill To
City of Medford 411 W. 8th St. Medford, OR 97501

Date	Invoice #
2/1/2011	110202

Project	Ref. #	Terms
Citywide Solar Feasibil...		Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
1/3/2011	5.25	DM-CoM-R0...	R0118		Dave Morris - Final Solar Pathfinder assessments for the following qualified sites: Annex, Fire Station #6, Riverside parking garage, City Service Center, US Cellular Park, Waste Water Treatment Facility.	88.00	462.00
1/3/2011	11.5	SD-CoM-R0...	R0118		Sherry Dowiot - Proof read all 15 workbooks for: Fire Stations #6, #8, # 3, #2, #5, #4, Front Parking garage, Lausmann Annex, Prescott Park, City Hall, Annex, US Cellular Park, Waste Water, and Service Center. Make grammatical corrections. Rewrite executive summary for City Council. Create City Council executive version of final report.	65.00	747.50
1/3/2011	10	BT-CoM-R0...	R0118		Buzz Thielemann - Write PowerPoint for City Council meeting. Critique City Council handout material. Present to Brian Sjothun for pre-approval. Revises PowerPoint.	120.00	1,200.00
1/4/2011	11.5	SD-CoM-R0...	R0118		Sherry Dowiot - Prepare City Council meeting materials. Bind all executive reports and make copies for the media (summary report). Review draft spreadsheets. Make correction on ROI and incentive amounts.	65.00	747.50
1/4/2011	2	DM-CoM-R0...	R0118		Dave Morris - Revise solar assessments for final report. Reviews alternative locations and revises solar shading percentages.	88.00	176.00

Thank you for your business. If you have any questions feel free to call. (541) 770-5884

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 Fed. Tax ID 93-1219782

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<b>Payments/Credits</b>
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1/4/2011	10	BT-CoM-R0...	R0118		Buzz Thielemann - Revise PowerPoint presentation and handouts after Brian Sjothun review. Finalize all handouts. Work on final compete report. Research concentrated solar, BIPV, thin film, poly and mono for report. Research solar access numbers on I-5 corridor.	120.00	1,200.00
1/5/2011	8	BT-CoM-R0...	R0118		Buzz Thielemann - Work on final report (6 hours). City Council meeting. Dry run of PowerPoint.	120.00	960.00
1/6/2011	8.5	BT-CoM-R0...	R0118		Buzz Thielemann - Work on final report draft. Correct PowerPoint. Rewrite methodology portion. Include access to commercial power to become eligible for BETC and ETO incentives.	120.00	1,020.00
1/7/2011	9	BT-CoM-R0...	R0118		Buzz Thielemann - Work on draft final report. Research net metering options for solar. Research changes in BETC, Schedule 036 grid sales and FIT offerings. Call Pacific Power on program changes. Deducts of 10% for each subsequent Pacific Power FIT offering.	120.00	1,080.00
1/8/2011	5	BT-CoM-R0...	R0118		Buzz Thielemann - Work on final report draft. Research Interconnection Agreement, net meter requirements, Net Meter Application.	120.00	600.00

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1/10/2011	8	BT-CoM-R0...	R0118		Buzz Thielemann - Work on final report draft. Research solar shading acceptance for BETC. Research Solar Now. Call Lee Rahr of Solar Now in Portland. Set up Portland meeting. Research BIPV (Building Integrated Photovoltaic).	120.00	960.00
1/11/2011	3	BT-CoM-R0...	R0118		Buzz Thielemann - Create complete draft report and get ready for review. Rewrite portion on public leadership and executive summary.	120.00	360.00
1/12/2011	2	BT-CoM-R0...	R0118		Buzz Thielemann - Meet with Greg McKown regarding electric access and City budget for solar.	120.00	240.00
1/13/2011	5.25	BT-CoM-R0...	R0118		Buzz Thielemann - Give PowerPoint presentation of solar feasibility study findings to City Council. Give materials to the media. Media interview from Mail Tribune and TV.	120.00	630.00
1/13/2011	0.25	BT-CoM-R0...	R0118		Buzz Thielemann - Travel to/from City Hall.	120.00	30.00
1/13/2011	5.25	DM-CoM-R0...	R0118		Dave Morris - Attend RHT solar feasibility study presentation to City Council. Demonstrate Solar Pathfinder solar shading.	88.00	462.00
1/13/2011	0.25	DM-CoM-R0...	R0118		Dave Morris - Travel to/from City Hall.	88.00	22.00
1/14/2011	6.25	SD-CoM-R0...	R0118		Sherry Dowiot - Review first draft of complete solar feasibility study. Make corrections and return to Buzz.	65.00	406.25
1/14/2011	8	BT-CoM-R0...	R0118		Buzz Thielemann - Revise complete study. Make corrections. Revise executive summary.	120.00	960.00

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1/14/2011	4	DM-CoM-R0...	R0118		Dave Morris - Revisit best solar sites. Good day for solar access. Confirm solar shading figures. Determine Annex (parking) could be better if the solar shade is moved forward. Lausmann Annex casts a shadow in fall-evening sun.	88.00	352.00
1/17/2011	5.5	BT-CoM-R0...	R0118		Buzz Thielemann - Rewrite final study. Make corrections. Add Dave Morris' info on solar shading. Change wording on Annex parking. Call the Police Chief on non-energy benefits. Establish dollar value on non-energy benefit of shading electronics in police cars.	120.00	660.00
1/18/2011	1	BT-CoM-R0...	R0118		Buzz Thielemann - Speak with Kevin Lollis for TV reporting of City solar study.	120.00	120.00
Remainder of PO = \$5,689							

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<b>Total</b>	\$15,075.25
<b>Payments/Credits</b>	\$-15,075.25
<b>Balance Due</b>	\$0.00

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Date	Invoice #
2/23/2011	110223

Project	Ref. #	Terms
Citywide Solar Feasibil...	P0 #212445	Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
		BT-CoM-R0...	R0118	PO212445	Buzz Thielemann - City of Medford - Citywide Solar Feasibility Study, Energy Trust Solarize Medford, and sister city with Portland for Solar America Cities. All funded by successful REFF grant. Per City of Medford P.O. #212445 dated 8/11/10.		
1/19/2011	7.25	BT-CoM-R0...	R0118		Final Billing for PO #212445 1/19/11 - 2/23/11		
1/19/2011	5	SD-CoM-R0...	R0118		Buzz Thielemann - Solar Now presentation from meeting with Lee Rahr. Meeting in Portland. Solar Now tool kit. Incorporate other Solar Now community projects into final report. Rewrite that portion of final draft.	120.00	870.00
1/19/2011	5	SD-CoM-R0...	R0118		Sherry Dowiot - Make all corrections to final draft. Convert to final report. Download all pdfs.	65.00	325.00
1/20/2011	6.5	BT-CoM-R0...	R0118		Buzz Thielemann - Revise final report. Adjust FIT incentives to reflect 4/1/11 discounts. Correct grid sales with new Schedule 037 numbers.	120.00	780.00
1/21/2011	7	BT-CoM-R0...	R0118		Buzz Thielemann - Call Lee Rahr on Solar Now. Find new Solar Now communities and include pdf. Meet with Brian Sjothun and Greg McKown on city acceptance and cash to proceed. Determine number of final copies and adaptability to include in Master Plan.	120.00	840.00

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Citywide Solar Feasibil...	P0 #212445	Net 30

Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
1/21/2011	5.25	SD-CoM-R0...	R0118		Sherry Dowiot - Produce final report for Dave Morris, lead engineer, review.	65.00	341.25
1/23/2011	6.5	BT-CoM-R0...	R0118		Buzz Thielemann - Receive corrections from final review. Make corrections on: Annex, Fire station #6, Riverside parking garage, City Service Center, US Cellular Park, Waste Water Treatment Facility.	120.00	780.00
1/24/2011	4	BT-CoM-R0...	R0118		Buzz Thielemann - From final review, make corrections on: Fire Stations #6, #8, # 3, #2, #5, #4, Front parking garage, Lausmann Annex, Prescott Park, City Hall, Annex, US Cellular Park, Waste Water, and Service Center.	120.00	480.00
1/25/2011	2.25	DM-CoM-R0...	R0118		Dave Morris - Field work. Check non-qualifying locations to determine if initial disqualifications were correct. Reject recommendation on Fire Station #6 because of hip roof shading. Recommend alternative location on end of hip roof. Request revision.	88.00	198.00
1/25/2011	1	BT-CoM-R0...	R0118		Buzz Thielemann - Rewrite Fire Station #6 recommendation. Change workbook.	120.00	120.00
1/27/2011	1.75	DM-CoM-R0...	R0118		Dave Morris - Review Fire Station #6 rewrite. Review discounts for less-than perfect tilt. Most sites are in range. Service Center is too flat, but discount vs. racking cost is questionable.	88.00	154.00
1/27/2011	1	BT-CoM-R0...	R0118		Buzz Thielemann - Discuss final report with Brian Sjothun. Get approval on number of copies needed.	120.00	120.00

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Date	Hrs/Mi	Code	RHT #	Client Ref #	Description	Rate	Amount
1/28/2011	2	BT-CoM-R0...	R0118		Buzz Thielemann - Call Lee Rahr with City of Portland regarding Solar Now funding. ARRA allocated \$400,000 to Portland for a two-year program. Portland can take on partners. Medford is a good location for Solar Now. Contact Brian Sjothun regarding Solar Now program in Portland. Interest from Rogue Valley Council of Governments (RVCOG) in the Solar Now program. They have staff to man such a program.	120.00	240.00
2/7/2011	1	BT-CoM-R0...	R0118		Buzz Thielemann - Contact Dan Moore at RVCOG. Give PowerPoint presentation on City of Medford solar feasibility study.	120.00	120.00
2/8/2011	2	BT-CoM-R0...	R0118		Buzz Thielemann - Call Mayor Gary Wheeler on report. Respond to Mayor's TV show request to present the study. Review study. Review all corrections before binding.	120.00	240.00
2/9/2011	2	BT-CoM-R0...	R0118		Buzz Thielemann - Call Dan Moore with RVCOG to review study. Dan wants to involve his supervisor, Michael Cavallaro.	120.00	240.00
2/14/2011	2.75	BT-CoM-R0...	R0118		Buzz Thielemann - Present to Michael. Wants to present to other agencies and incorporate on RVCOG building.	120.00	330.00
2/17/2011	1	DM-CoM-R0...	R0118		Dave Morris - Review final solar feasibility study.	88.00	88.00

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2/18/2011	1	BT-CoM-R0...	R0118		Buzz Thielemann - Call Brian Sjothun for study delivery, number of copies and front cover change per his request.	120.00	120.00
2/21/2010	3.25	SD-CoM-R0...	R0118		Sherry Dowiot - Organize multiple pdfs. Print and bind 6 copies of final report.	65.00	211.25
2/21/2011	1	BT-CoM-R0...	R0118		Buzz Thielemann - Present final report to Brian Sjothun.	120.00	120.00
		Discounts			Discount - Contract was for a not-to-exceed amount of \$30,000. Previously billed a total of \$24,311. Remaining balance = \$5,689.	-1028.50	-1,028.50

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<b>Total</b>	\$5,689.00
<b>Payments/Credits</b>	\$-5,689.00
<b>Balance Due</b>	\$0.00