

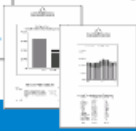
QuickQuotes and Market Analysis Tool

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Clean Power Research
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Solar Forum, Anaheim, CA
November 20, 2003



Quick Quotes for Clean Energy Systems



Registered Users

Company Login ID

Salesperson ID

Login

Overview

QuickQuotes enables dealers and resellers to quickly generate high-quality customer sales quotes for clean energy systems.

Efficient

Reduces the time and effort required to generate a personalized quote

Effective

Clearly presents a customized economic evaluation of the cost-effectiveness of a clean energy system for a specific customer

Credible

Produces relevant economic analyses based on Clean Power Research's industry-leading Estimator software engine

Benefits

✓ High-quality Personalized Sales Quotes

- Relevant economic evaluations
- Adobe Acrobat PDF format
- Print or save electronically
- Display your company logo
- Tailored to fit your sales approach

✓ Location-specific Calculations

- Residential or commercial customers
- Utilize customer-specific data
- Can include shading analysis
- Can be updated at customer's site

✓ No Software Maintenance

- Internet-based
- No specialized software to install
- Maintained by Clean Power Research

Features

Large Selection of Information

QuickQuotes can provide a variety of useful information in both graphical and tabular formats.

- Net System Cost After Incentives
- Savings and Costs With Tax Effects
- Net, Discounted, and Cumulative Cash Flows
- Daily, Monthly, and Annual Consumption and Production
- Detailed Electric Bill Savings
- Many other results

State of the Art Analysis + Robust Data

QuickQuotes uses the Clean Power Estimator analysis engine which uses proven algorithms based on many years of research. Estimator databases provide current information about electric rate tariffs, incentive programs, solar resources, load profiles, emission factors, and tax data.





QuickQuotes™ Quote Manager

New Customer

Prepare Quote

Customer
Napa Valley Plastics ▼



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[Legal Disclaimer](#)



QuickQuotes™ Quote Manager

New Customer

Prepare Quote

Customer

Andrew Grant	▼
Napa Valley Plastics	
Andrew Grant	
James Wellhauser	



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Create Quote

SELECTIONS
(Napa, CA)

Economic Test Summary

PV System

Manufacturer

BP Solar

Model

150 Watt (Model BP2150S)

Number of Modules ?

20

Tilt ?

20°

Direction ?

South

Cost Per kW (dc) ?

\$8,000 per kW

[Click for Obstruction Analysis](#)

[Done](#)

Inverters

Manufacturer

SMA America

Model

2.5 kW (Model SWR2500U)

ASSUMPTIONS

Electric Bill ?

\$3,000 per year

Annual escalation ?

1.0% per year

Payment Method ?

Home Equity Loan

Loan Life ?

30 years

Loan Rate ?

7.00%

Loan Points ?

Summary

- Net Present Value: \$8,803
- Internal Rate of Return: 14.8%
- Simple Payback: 10 years
- Simple Payback (w/ loan tax savings): 8 years

Create Quote

SELECTIONS
(Napa, CA)

Economic Test Summary

PV System

Manufacturer

- BP Solar
- BP Solar**
- Dunasolar
- Energy Photovoltaics, Inc.
- Evergreen Solar
- First Solar
- Isototon
- Solar Integrated Technologies
- Kyocera America
- Mitsubishi Electric Corporation
- Midway Labs, Inc.
- Matrix Solar/Photowatt

[Click for Obstruction Analysis](#)

[Done](#)

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Summary

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Create Quote

**SELECTIONS
(Napa, CA)**

- Monthly Output
- Economic Test Summary
- Net Cost
- Daily Output
- Monthly Output**
- PV Production
- Annual Savings And Costs
- Monthly Savings And Costs
- Cash Flow
- Cumulative Cash Flow
- Discounted Cash Flow
- Cumulative Discounted Cash Flow

Tilt Direction

20° South

Cost Per kW (dc)

\$8,000 per kW

[Click for Obstruction Analysis](#) [Done](#)

Inverters

Manufacturer
SMA America

Model
2.5 kW (Model SWR2500U)

ASSUMPTIONS

Electric Bill Annual escalation

\$3,000 per year 1.0% per year

Payment Method

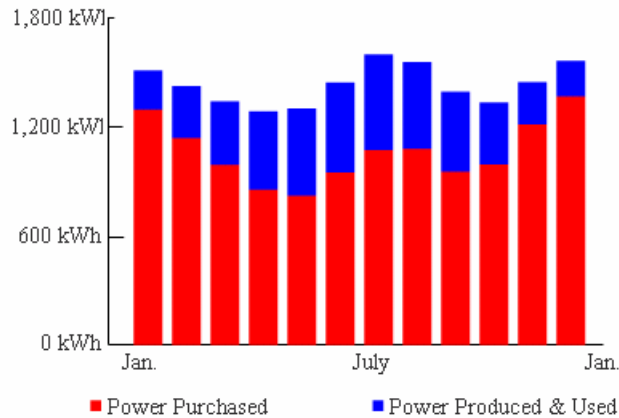
Home Equity Loan

Loan Life Loan Rate

30 years 7.00%

Loan Points

Monthly Consumption and Production



Monthly Consumption and Production (kWh)

Month	Purchased	Produced and Used
January	1,283	213
February	1,128	285
March	981	346
April	846	429
May	815	475
June	941	492
July	1,063	522
August	1,069	474
September	944	437
October	983	338
November	1,202	231
December	1,355	195
Total	12,608	4,436

Create Quote

SELECTIONS (Napa, CA)

PV Production: [dropdown]
 April: [dropdown]

PV System

Manufacturer: [BP Solar dropdown]
 Model: [150 Watt (Model BP2150S) dropdown]
 Number of Modules: [20 dropdown]
 Tilt: [20° dropdown] Direction: [South dropdown]
 Cost Per kW (dc): [\$8,000 per kW dropdown]

[Click for Obstruction Analysis](#) [Done](#)

Inverters

Manufacturer: [SMA America dropdown]
 Model: [2.5 kW (Model SWR2500U) dropdown]

ASSUMPTIONS

Electric Bill: [\$3,000 per year dropdown] Annual escalation: [1.0% per year dropdown]
 Payment Method: [Home Equity Loan dropdown]
 Loan Life: [30 years dropdown] Loan Rate: [7.00% dropdown]
 Loan Points: [dropdown]

Simple Input
 Detailed Input
 Angle Input
 View Profile

HELP
 Ruler Distance: 0
 Ruler Height

Credits

Set compass as shown

Results: Elevation	N	NNW	WNW	W	WSW	SSW	S	SSE	ESE	E	ENE	NNE
Angle (deg)	...	...	...	...	...	...	...	...	...	...	...	...

Obstruction Angle Input Options

- Select Simple Input if you are next to where the collector will be located
- Select Detailed Input if you are NOT next to where the collector will be located
- Select Angle Input if you know the angles or have a tool to measure the angles

Create Quote

**SELECTIONS
(Napa, CA)**

PV Production

April

PV System

Manufacturer
BP Solar

Model
150 Watt (Model BP2150S)

Number of Modules ?
20

Tilt ? Direction ?
20° South

Cost Per kW (dc) ?
\$8,000 per kW

[Click for Obstruction Analysis](#) [Done](#)

Inverters

Manufacturer
SMA America

Model
2.5 kW (Model SWR2500U)

ASSUMPTIONS

Electric Bill ? Annual escalation ?
\$3,000 per year 1.0% per year

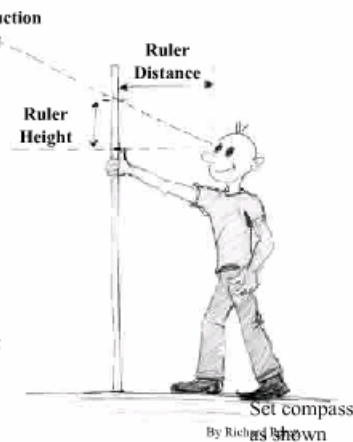
Payment Method ?
Home Equity Loan

Loan Life ? Loan Rate ?
30 years 7.00%

Loan Points ?

DONE

- 1) Obtain stick, measuring tape, & level
- 2) Stand by stick & draw a mark at eye level (make sure everything is level)
- 3) Place thumb below mark
- 4) Measure distance between eyes and stick when arm is extended
- 5) Enter result in **Ruler Distance** box
- 6) Adjust compass as shown to account for magnetic declination in your location
- 7) For each point on compass rose, find location on stick corresponding to top of obstruction
- 8) Enter results in **Ruler Height** boxes next to compass rose
- 9) Note: obtain most conservative estimate by measuring ruler height at both bottom corners of collector and selecting the largest number for each direction



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Economic Test Summary

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Number of Modules ?
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[Click for Obstruction Analysis](#) [Done](#)

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Electric Bill ? Annual escalation ?
\$3,000 per year 1.0% per year

Payment Method ?
Home Equity Loan

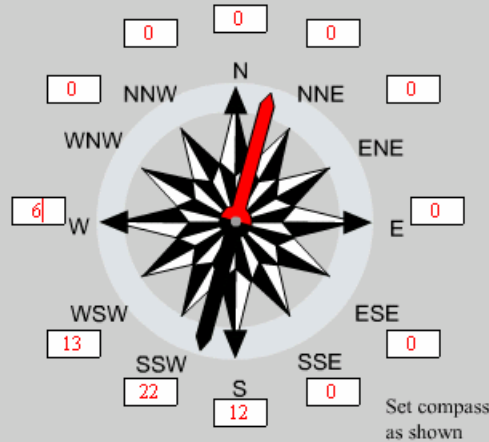
Loan Life ? Loan Rate ?
30 years 7.00%

Loan Points ?

- Simple Input
- Detailed Input
- Angle Input
- View Profile

HELP
Ruler Distance 24
Ruler Height

Credits



Results: Elevation	N	NNW	WNW	W	WSW	SSW	S	SSE	ESE	E	ENE	NNE
Angle (deg)	0	0	0	14	28	42	26	0	0	0	0	0

Obstruction Angle Input Options

- Select Simple Input if you are next to where the collector will be located
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Loan Life ?

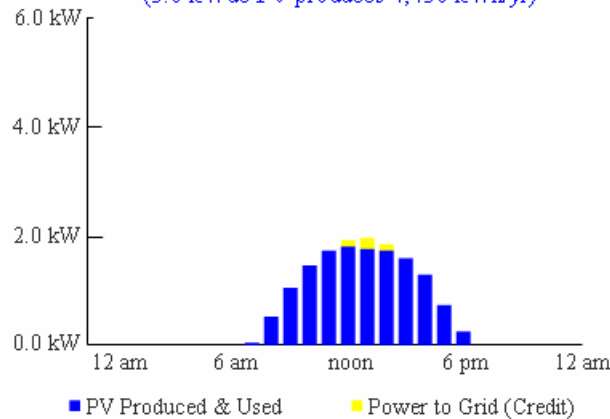
30 years

Loan Rate ?

7.00%

Loan Points ?

Avg. Production (April)
(3.0 kWdc PV produces 4,436 kWh/yr)




Average PV Output (kWh)

Hour >>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Daily Avg.	Month Total	
January	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.61	1.01	1.21	1.21	1.09	0.60	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	213
February	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.40	0.81	1.21	1.41	1.41	1.30	0.90	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94	285
March	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.71	1.11	1.41	1.51	1.61	1.51	1.06	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14	346
April	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	1.01	1.41	1.71	1.91	1.91	1.81	1.61	1.30	0.70	0.20	0.00	0.00	0.00	0.00	0.00	0.00	1.41	429
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.71	1.21	1.51	1.82	2.02	1.91	1.81	1.30	0.90	0.40	0.00	0.00	0.00	0.00	0.00	0.00	1.56	475
June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.61	1.11	1.51	1.82	2.02	2.12	2.01	1.81	1.51	1.00	0.50	0.00	0.00	0.00	0.00	0.00	1.62	492
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.61	1.21	1.61	1.92	2.22	2.22	2.19	1.61	1.10	0.50	0.00	0.00	0.00	0.00	0.00	0.00	1.72	522
August	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	1.01	1.41	1.82	2.02	2.21	2.11	1.81	1.40	0.90	0.40	0.00	0.00	0.00	0.00	0.00	0.00	1.56	474
September	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.91	1.41	1.82	2.02	2.12	2.01	1.71	1.20	0.60	0.10	0.00	0.00	0.00	0.00	0.00	0.00	1.44	437
October	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.81	1.11	1.51	1.61	1.71	1.51	1.30	0.90	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	338
November	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.50	0.91	1.11	1.21	1.31	2.08	0.40	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	231
December	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.60	0.91	1.11	1.10	1.00	0.80	0.50	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	195
Total																										4,436	



Bookmarks
 Thumbnails
 Comments
 Signatures



Customer
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Company Contact
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 Email: sales@clean-power.com

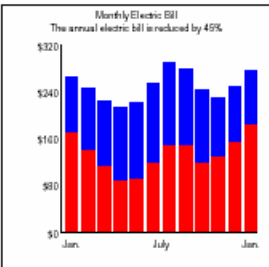
Summary

It is estimated that a PV system for your home will:

- Save \$1,365 off your \$3,001 annual electric bill (45% reduction)
- Yield 14.8 % rate of return
- Have 8 year payback
- Help the environment by reducing 165,025 lbs of CO2 emissions

Sales Price Breakdown

Bill Price	\$24,000
Incentives Applied to Purchase	\$(9,359)
Initial Out-of-Pocket Cost	\$14,641
Incentives Received After Purchase	\$(2,196)
Tax Effects	\$615
Meter Change	\$277
Final Cost After Incentives	\$13,337



Monthly Electric Bill
The annual electric bill is reduced by 45%

Equipment

PV system size	3.0 kW-DC
Orientation	South at 20 degree tilt
PV modules	20 x BP Solar 150 Watt (Model BP2150S)
Inverter	1 x SMA America 2.5 kW (Model SWR2500U)

Disclaimer

The program includes potential economic incentives and tax benefits of purchasing a renewable energy system. You should confirm the availability of the economic incentives and you should consult your tax adviser about the tax deductibility of any interest payments before you purchase a system. Please read the full limitation of liability statement.

Navigation and toolbar area with icons for back, forward, search, and zoom. The zoom level is set to 83%.

Document content area featuring the Clean Power Research logo and two tables of electric bill details.



Electric Bill Details Current

	Energy Bill	Discount	Minimum Bill	Total
January	\$295	10%	\$5	\$285
February	\$273	10%	\$5	\$246
March	\$251	10%	\$5	\$226
April	\$238	10%	\$5	\$214
May	\$247	10%	\$5	\$222
June	\$284	10%	\$5	\$255
July	\$323	10%	\$5	\$291
August	\$312	10%	\$5	\$281
September	\$270	10%	\$5	\$243
October	\$255	10%	\$5	\$229
November	\$279	10%	\$5	\$251
December	\$309	10%	\$5	\$278
Total	\$3,335	10%	\$60	\$3,001

Electric Bill Details Proposed

	Energy	Fixed Cost	Bill	Discount	Minimum Bill	Total
January	\$188	\$4		10%		\$173
February	\$154	\$4		10%		\$142
March	\$125	\$4		10%		\$116
April	\$97	\$4		10%		\$91
May	\$99	\$4		10%		\$93
June	\$132	\$4		10%		\$122
July	\$163	\$4		10%		\$150
August	\$165	\$4		10%		\$152
September	\$131	\$4		10%		\$121
October	\$143	\$4		10%		\$133
November	\$171	\$4		10%		\$157
December	\$204	\$4		10%		\$187
Total	\$1,771	\$47		10%	\$107	\$1,636

- Bookmarks
- Thumbnails
- Comments
- Signatures

Summary

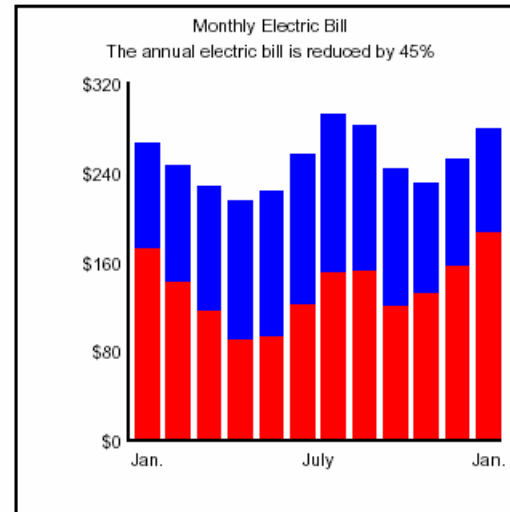
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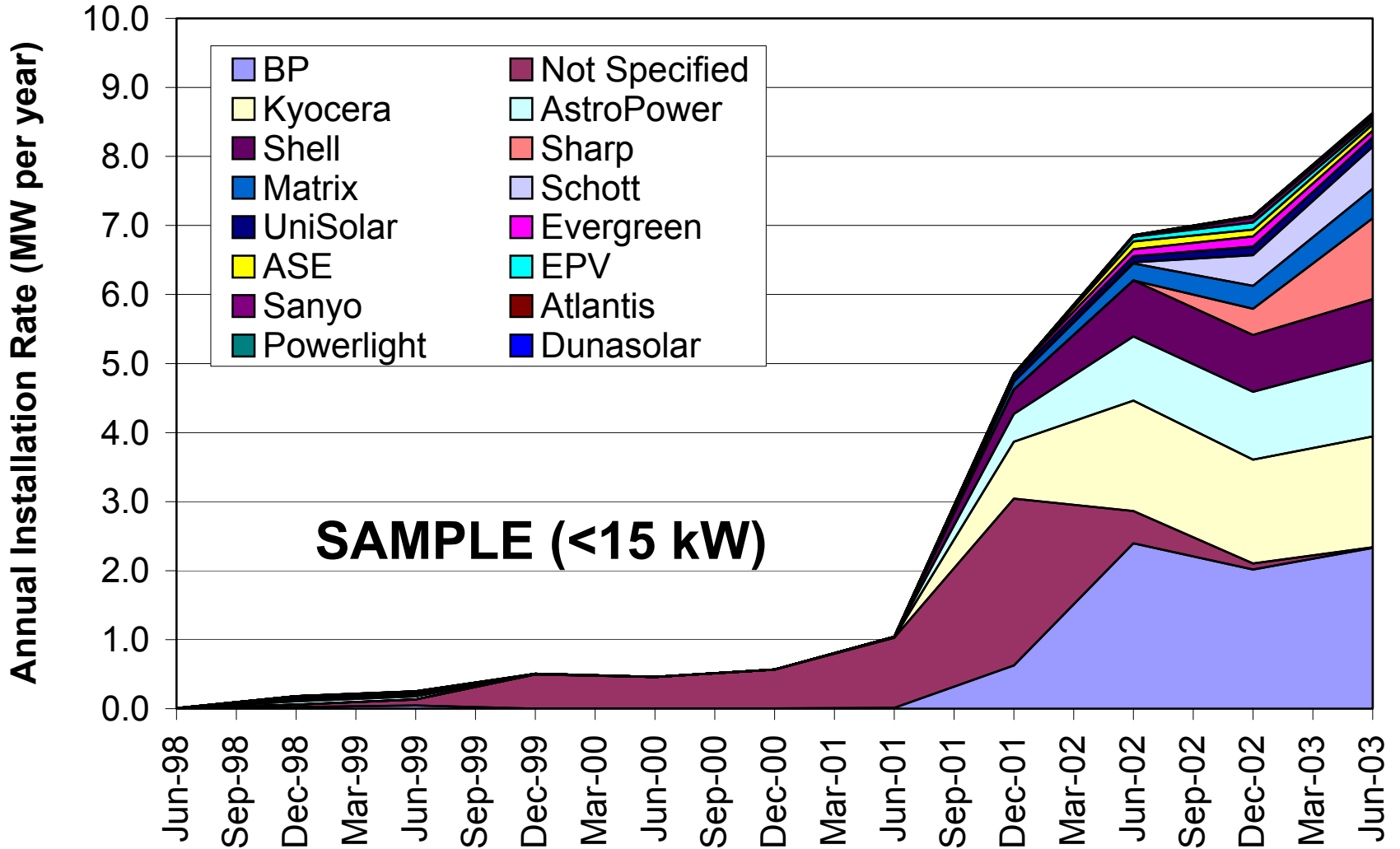
Market Analysis Tool

- The database driven Market Analysis Tool uses an Excel user interface to allow users to quickly and easily perform detailed evaluations of clean energy program buydown data
- Users can view results that include volume (MW), sales (\$), price, number of systems installed, and installation speed
- Results are presented by the combination of any two perspectives, including buydown program, utility territory, PV manufacturer, inverter manufacturer, dealer, dealer sales category, dealer change category, system size, and location
- Results are absolute or relative compared to previous period

Sample Results

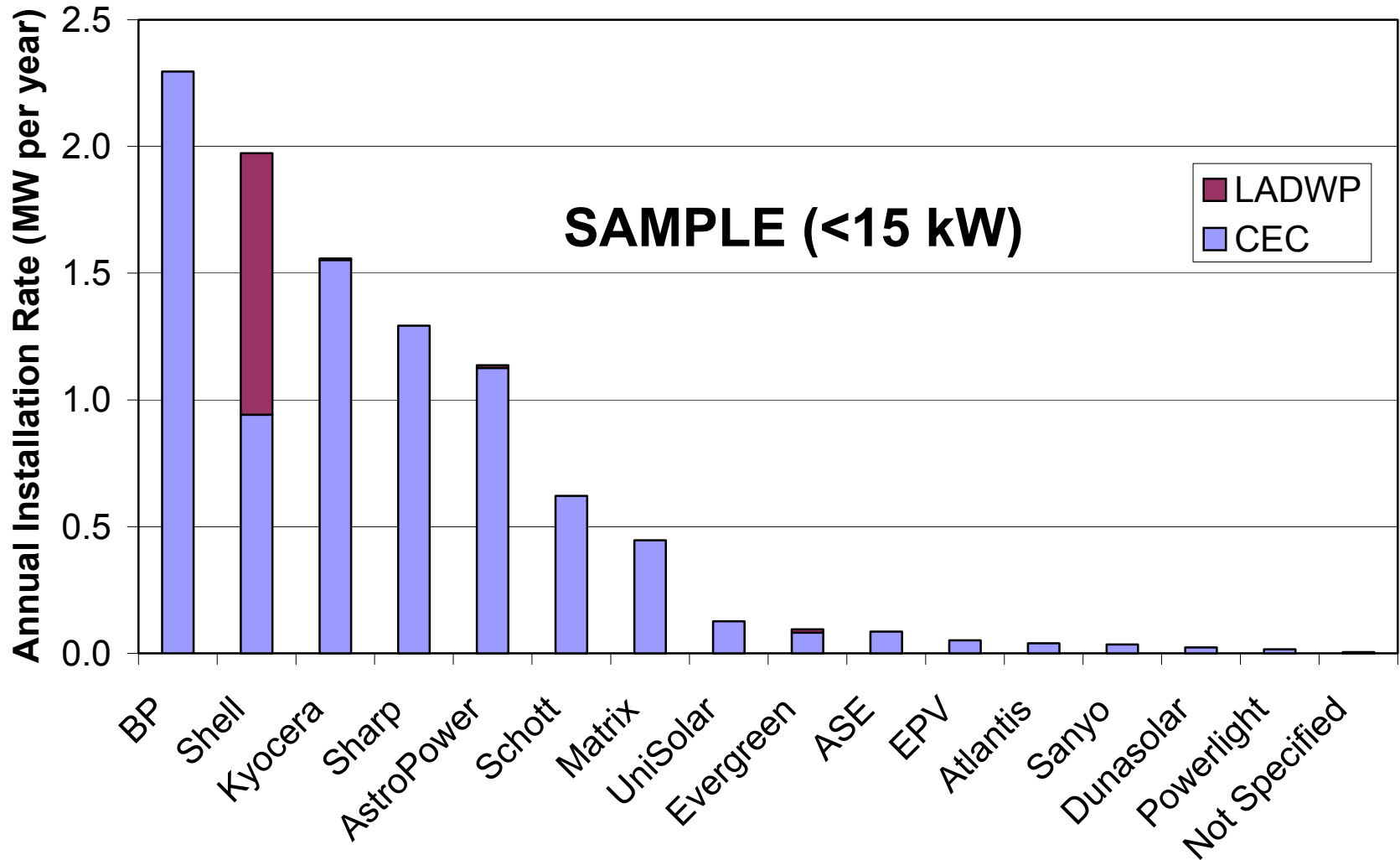
- Data source: Emerging Renewable Rebate Program
- System size: Under 15 kW
- Date: 1/1/2003 to 5/31/2003
- Sample results are presented as annual installation rate

Volume



Volume by PV Manufacturer and Program

Analysis Period: 1/1/2003 to 5/31/2003



Volume by PV Manufacturer and Utility Territory

Analysis Period: 1/1/2003 to 5/31/2003

