# Signature Page

## ELEC-2011

### I. Team Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Member Type</th>
<th>Email</th>
<th>Contact Phone</th>
<th>Responsible for what part</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark Barrall</td>
<td>Primary Team Member</td>
<td><a href="mailto:mark.barrall@marin.edu">mark.barrall@marin.edu</a></td>
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### II. Program Review Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Committee (Chairs)</th>
<th>Signature</th>
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</thead>
<tbody>
<tr>
<td>Chris Schultz</td>
<td>Curriculum Committee Chair</td>
<td></td>
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</tr>
<tr>
<td>Blaze Woodlief</td>
<td>Educational Planning Committee</td>
<td></td>
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</tr>
<tr>
<td>Laura McCarty and Erik Dumire</td>
<td>Facilities Committee Co-Chairs</td>
<td></td>
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</tr>
<tr>
<td>Sara McKinnon</td>
<td>Planning and Resource Allocation Committee Co-Chair/Academic Senate President</td>
<td></td>
<td></td>
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<tr>
<td>N/A</td>
<td>Planning and Resource Allocation Committee Co-Chair/Instructional Equipment Committee Chair</td>
<td></td>
<td></td>
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<tr>
<td>Sara McKinnon, Yolanda Bellisimo and Anne Gearhart</td>
<td>Program Review Committee Chair and SLO Coordinators</td>
<td></td>
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</tr>
<tr>
<td>N/A</td>
<td>Student Access and Success Committee Chair</td>
<td></td>
<td></td>
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<tr>
<td>Michael Irvine</td>
<td>Tech Committee Chair</td>
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### III. Vice President of Academic Affairs

<table>
<thead>
<tr>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>Nick Chang</td>
<td></td>
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### IV. Board of Trustees President

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<thead>
<tr>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>Eva Long</td>
<td></td>
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</table>
I. Technology/Software Requests

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IPC and Budget.

Importance:
- ‘A’ means that your discipline cannot teach your course(s) without the requested equipment.
- ‘B’ means that your course(s) would be greatly enhanced with the requested equipment.
- ‘C’ means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

In addition, how many times have you requested this item, but you have not received it?

<table>
<thead>
<tr>
<th>Importance</th>
<th>Priority</th>
<th>To Support Annually</th>
<th>Category</th>
<th>Discipline Area</th>
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<tbody>
<tr>
<td>A</td>
<td>01</td>
<td>100 Students</td>
<td>Discipline-Related Software</td>
<td>Electronics Technology - Solar Thermal</td>
</tr>
</tbody>
</table>

Description and part number for ordering. Please include system requirement.
Polysun 4 Professional Residential/small Commercial Solar Planning Software PC Based, Vista,XP,2000, NT

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<th>Qty.</th>
<th>Unit Cost:</th>
<th>Tax:</th>
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<td>$20.00</td>
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Type
- College-wide
- Discipline-Specific

Item to be shared with the following Department/Program: (Include any shared expenses)

no

Justification for Item (See Rating Rubric)
1. Is this software required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
   Is this software required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

   no

2. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?
Students will gain the practical knowledge of how basic solar thermal systems work. Students will be able to apply these basic principles to design more complex systems with this software.

3. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

This system is required to successfully teach solar thermal. More students will be attracted to the program with the ability to use the same software they may be using in the industry.

4. What student learning or other outcomes are expected? Is it important to the achievement of student goals? How will these outcomes be measured for future planning? What data or evidence supports your request?

Student outcomes will be hard to meet without this software. Students must understand how to design with software. Students that wish to be involved with this re-emerging technology must be able to design these systems to fit many different applications.

5. Additional Justification for this item:
Technology Requests
Part II : Hardware for Lab and Classroom

I. Technology Requests-Hardware for Lab and Classroom or other student use

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IPC and Budget.

Importance:
• ‘A’ means that your discipline cannot teach your course(s) without the requested equipment.
• ‘B’ means that your course(s) would be greatly enhanced with the requested equipment.
• ‘C’ means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

In addition, how many times have you requested this item, but you have not received it?

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<th>Priority</th>
<th>Category</th>
<th>Discipline Area</th>
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<tbody>
<tr>
<td>A</td>
<td>01</td>
<td>100 Students</td>
<td>Other</td>
</tr>
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</table>

Description and part number for ordering:
Renewable Energy Supplies for teaching solar thermal, wind and dc motors. Motor kit @ $70
Thermal kits @ $70 ea Wind Kits @ $75 ea

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Type
New
College-wide
Discipline-Specific
Open Lab
Lab use

If this is an upgrade or replacement, please briefly describe your existing equipment in terms of age and capability or lack thereof:

Item to be shared with the following Department/Program: (Include any shared expenses)
no

Justification for Item (See Rating Rubric)
1. Is this hardware required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
Is this software required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

no
2. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?

These parts are required to teach the basics of renewable energy. They will be used to reinforce the lecture portion of the class.

3. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

Students will gain the practical knowledge of how wind, solar thermal and solar pv system work.. Students will be able to see these basic principles in action.

4. What student learning or other outcomes are expected? Is it important to the achievement of student goals? How will these outcomes be measured for future planning? What data or evidence supports your request?

Students outcomes will be hard to meet without these items. Students need the hands-on to emphasize the lecture portion of the class.

5. Additional Justification for this item:

I. Technology Requests-Hardware for Lab and Classroom or other student use

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IFC and Budget.

Importance:
• ‘A’ means that your discipline cannot teach your course(s) without the requested equipment.
• ‘B’ means that your course(s) would be greatly enhanced with the requested equipment.
• ‘C’ means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

In addition, how many times have you requested this item, but you have not received it?

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<th>To Support</th>
<th>Category</th>
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<td>Electronics Technology</td>
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<td></td>
<td></td>
<td>100 Students</td>
<td></td>
<td>- Solar PV</td>
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Description and part number for ordering:
1- SMA Sunny Boy 700US inverter @ $1000 1- SMA Sunny Boy 2000HF inverter @ $1800

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<td>Classroom use</td>
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</table>

If this is an upgrade or replacement, please briefly describe your existing equipment in terms of age and capability or lack thereof:

Item to be shared with the following Department/Program: (Include any shared expenses)

no

Justification for Item (See Rating Rubric)

1. Is this hardware required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
   Is this software required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

no

2. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?

   Students have been exposed to only one type of inverter in the present classes. Students have not worked on smaller systems or the more complex systems. We need these two inverters to be able to complete our designs.

3. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

   These inverters are required to successfully teach solar pv. More students will be attracted to the program with the ability to actually do a mock installation for different sized systems. They must have these hands-on components to succeed in the work for

4. What student learning or other outcomes are expected? Is it important to the achievement of student goals? How will these outcomes be measured for future planning? What data or evidence supports your request?

   Student outcomes cannot be met without these items. Students must understand the different systems. The new Sunny Boy high frequency inverters are designed for projects requiring UL certification and represent the next step in innovative SMA technology. Featuring world-class efficiency, a slim-line enclosure and reduced weight, the Sunny Boy HF series of inverters can be mounted in between wall studs, making it perfect for new construction or space-constrained retrofits. These inverters also have a wireless Bluetooth communication system.

5. Additional Justification for this item:
I. Technology Requests-Hardware for Lab and Classroom or other student use

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IPC and Budget.

Importance:
- 'A' means that your discipline cannot teach your course(s) without the requested equipment.
- 'B' means that your course(s) would be greatly enhanced with the requested equipment.
- 'C' means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

In addition, how many times have you requested this item, but you have not received it?

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<td>03</td>
<td>100 Students</td>
<td>Other</td>
<td>Solar Thermal</td>
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Description and part number for ordering:
80 Gallon Simple Drainback Solar Thermal System - model 80DBSYS1 Includes Solar Thermal Tank Pre-wired with thermistors, flowmeters, valves Includes one 30 Evacuated Tube Heat Pipe with rack SR-30 Heat Pipe Collector

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<th>Unit Cost:</th>
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Type
- College-wide
- Discipline-Specific
  - New
  - None
  - Classroom use

If this is an upgrade or replacement, please briefly describe your existing equipment in terms of age and capability or lack thereof:

Item to be shared with the following Department/Program: (Include any shared expenses)

no

Justification for Item (See Rating Rubric)
1. Is this hardware required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
Is this software required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

no

2. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?

Students will gain the practical knowledge of how basic solar thermal systems work. Students
Students will gain the practical knowledge of how basic solar thermal systems work. They will be able to apply these basic principles to the more complex systems. We can teach the theory without this system but cannot give the students the practical experience necessary.

3. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

This system is required to successfully teach solar thermal. More students will be attracted to the program with the ability to actually do a mock installation. They must have a hands-on component to succeed in the workforce.

4. What student learning or other outcomes are expected? Is it important to the achievement of student goals? How will these outcomes be measured for future planning? What data or evidence supports your request?

Student outcomes cannot be met without these items. Students must understand the different systems - this system being the most simple. Students that wish to be involved with this re-emerging technology must be able to design these systems to fit many different applications. Students must have a grasp of the physical sizes and weights and foot-prints involved.

5. Additional Justification for this item:

I. Technology Requests-Hardware for Lab and Classroom or other student use

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IPC and Budget.

Importance:
• 'A' means that your discipline cannot teach your course(s) without the requested equipment.
• 'B' means that your course(s) would be greatly enhanced with the requested equipment.
• 'C' means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

In addition, how many times have you requested this item, but you have not received it?

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<th>Category</th>
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<td>04</td>
<td>100 Students</td>
<td>Other</td>
<td>Electronic Technology - Solar Thermal</td>
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</tbody>
</table>

Description and part number for ordering:
Heliodyne Indirect Water Heating Single Tank System 4500 watt Electrical Backup - one collector system Includes tank, valves and flowmeters. Includes one Heliodyne Blue Sputter Solar Thermal Collector 4x6 Gobi 406 001
Qty.  | Unit Cost: | Tax: | Shipping: | Total:  
--- | --- | --- | --- | ---
1  | $6,500.00 | $570.00 | $150.00 | $7,220.00

Type  
- College-wide
- Discipline-Specific

If this is an upgrade or replacement, please briefly describe your existing equipment in terms of age and capability or lack thereof:

Item to be shared with the following Department/Program: (Include any shared expenses)

no

Justification for Item (See Rating Rubric)

1. Is this hardware required to meet Title 5 and/or Ed Code? If so, how? (Cite code)

Is this software required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

no

2. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?

Students will gain the practical knowledge of how indirect solar thermal systems work. Students will be able to apply these principles to design more complex systems. We can teach the theory without this system but cannot give the students the practical experience necessary.

3. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

This system is required to successfully teach solar thermal. More students will be attracted to the program with the ability to actually do a mock installation. They must have a hands-on component to succeed in the work for

4. What student learning or other outcomes are expected? Is it important to the achievement of student goals? How will these outcomes be measured for future planning? What data or evidence supports your request?

Student outcomes cannot be met without these items. Students must understand the different systems - this system being the most widely used. Students that wish to be involved with this re-emerging technology must be able to design these systems to fit many different applications. Students must have a grasp of the physical sizes and weights and foot-prints involved.
5. Additional Justification for this item:

I. Technology Requests-Hardware for Lab and Classroom or other student use

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IPC and Budget.

Importance:
- ‘A’ means that your discipline cannot teach your course(s) without the requested equipment.
- ‘B’ means that your course(s) would be greatly enhanced with the requested equipment.
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<th>Category</th>
<th>Discipline Area</th>
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<td>05</td>
<td>100 Students</td>
<td>Other</td>
<td>Electronics Technology - Solar Thermal</td>
</tr>
</tbody>
</table>

Description and part number for ordering:
Direct Water Heating System Single Tank 4500 watt with electrical backup, with valves and flowmeters. Includes one 4x8 Copper black Chrome Plate Solar Thermal Collector -SLAR32

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<thead>
<tr>
<th>Qty.</th>
<th>Unit Cost:</th>
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Type: College-wide
Discipline-Specific: Classroom use

If this is an upgrade or replacement, please briefly describe your existing equipment in terms of age and capability or lack thereof:

Item to be shared with the following Department/Program: (Include any shared expenses)

no

Justification for Item (See Rating Rubric)
1. Is this hardware required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
   Is this software required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

   no

2. How will the quality of instruction be improved for student learning and success? Is it
necessary for students to succeed in a series of courses?

Students will gain the practical knowledge of how direct solar thermal systems work. Students will be able to apply these principles to the more complex systems. We can teach the theory without this system but cannot give the students the practical experience necessary.

3. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

This system is required to successfully teach solar thermal. More students will be attracted to the program with the ability to actually do a mock installation. They must have a hands-on component to succeed in the work for

4. What student learning or other outcomes are expected? Is it important to the achievement of student goals? How will these outcomes be measured for future planning? What data or evidence supports your request?

Student outcomes cannot be met without these items. Students must understand the different systems - this system being required for small compact jobs. Students that wish to be involved with this re-emerging technology must be able to design these systems to fit many different applications. Students must have a grasp of the physical sizes and weights and foot-prints involved.

5. Additional Justification for this item:

I. Technology Requests-Hardware for Lab and Classroom or other student use

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IPC and Budget.

Importance:
- ‘A’ means that your discipline cannot teach your course(s) without the requested equipment.
- ‘B’ means that your course(s) would be greatly enhanced with the requested equipment.
- ‘C’ means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

In addition, how many times have you requested this item, but you have not received it?

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<th>To Support Annually</th>
<th>Category</th>
<th>Discipline Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>06</td>
<td>100 Students</td>
<td>Other</td>
<td>Electronics Technology</td>
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<td></td>
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<td></td>
<td>- EV</td>
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</tbody>
</table>

Description and part number for ordering:
Parts to upgrade CitiCar #2 consisting of new 14HP 48v DC motor; Alltrax Controller; 48v Lithium Batteries w/charger and BMS; Martek dc/dc converter;
If this is an upgrade or replacement, please briefly describe your existing equipment in terms of age and capability or lack thereof:

Item to be shared with the following Department/Program: (Include any shared expenses)

ACRT

Justification for Item (See Rating Rubric)

1. Is this hardware required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
   Is this software required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

   no

2. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?

   These parts are required to rebuild the second 1976 Citi Car. These Citi Cars were a reaction to the gas crisis of the 1970’s. They are one of the first mass produced 100% electric cars. 2000-3000 car were produced. Students will learn the basic practical design steps of designing and producing a modern electric car.

3. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

   Students will gain the practical knowledge of how current electrical cars are built. Students will be able to apply these basic principles to the electrics and hybrid of today. We are teaching hybrid technology in all of our ACRT Classes. It is expected that 65% of all cars manufactured by 2016 will incorporate hybrid technology or 100% electrics. Having these different systems available will attract new students to the programs.

4. What student learning or other outcomes are expected? Is it important to the achievement of student goals? How will these outcomes be measured for future planning? What data or evidence supports your request?

   Students outcomes cannot be met without these items. Students must understand the basics of current electric cars. Restoring this vehicle will allow us to use it as a teaching tool for the rest of the classes. It will provide, in the most simple terms, the basics of all the electric and hybrid designs
5. Additional Justification for this item:
Instructional Operating Supplies

ELEC-2011

I. Consumable Instructional Operating Supplies

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, PRAC.

Note: Please group requests into broad categories of items required to teach a class. Make ONE entry for each category. Please enter only if your costs have gone up or down or you need additional funds for some reason. Don't fill out if your supply budget has not changed.

Importance:
• 'A' means that your discipline cannot teach your course(s) without the requested equipment.
• 'B' means that your course(s) would be greatly enhanced with the requested equipment.
• 'C' means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

In addition, how many times have you requested this item, but you have not received it?

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<th>To Support Annually</th>
<th>Discipline Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>01</td>
<td>100 Students</td>
<td>Electronics Technology</td>
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Broad Category (for example in Chemistry - "Chemicals")
Account 12400 23201 64000 093400 --- existing equipment budget

<table>
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Type: Increasing Cost
How Long?: Ongoing/Recurring

Item to be shared with the following Department/Program: (Include any shared expenses)

Justification for Item (See Rating Rubric)
1. Is it necessary for students to succeed in a series of courses?

The electronic technology discipline is changing rapidly with the rapidly changing green technology field. The need for ongoing equipment increases as the technology changes. with the additions of solar thermal, a residential solar pv class and the on-going changes to the electric and hybrid auto fields, additional equipment is needed. Unfortunately, being at the leading edge of technology means constantly changing classes to stay up with the field.

2. How will access for students be improved? How many students (annually) will benefit from
this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

Students cannot re-build the systems from year to year because there are no equipment. Updated battery technology, bluetooth reporting, changes in the solar thermal and pv fields constantly require additional equipment. We are forced to teach "this is how you would do it on an actual job site" rather than having the students actually experience what they will be doing.

3. What student learning or other outcomes are expected? Is it important to the achievement of student goals? How will these outcomes be measured for future planning? What data or evidence supports your request?

Student learning outcomes are diminished. We can explain the design features and what the students would be expected to do, but cannot allow them to experience the actual work.

Students leave the classes with the basic knowledge of the subjects but no hands-on work to provide employers

I. Consumable Instructional Operating Supplies

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, PRAC.

Note: Please group requests into broad categories of items required to teach a class. Make ONE entry for each category. Please enter only if your costs have gone up or down or you need additional funds for some reason. Don't fill out if your supply budget has not changed.

Note: These are generally ongoing costs. One-time items go under Instructional Equipment.

Importance:
• 'A' means that your discipline cannot teach your course(s) without the requested equipment.
• 'B' means that your course(s) would be greatly enhanced with the requested equipment.
• 'C' means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

In addition, how many times have you requested this item, but you have not received it?

<table>
<thead>
<tr>
<th>Importance</th>
<th>Priority</th>
<th>To Support Annually</th>
<th>Discipline Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>01</td>
<td>100 Students</td>
<td>Electronic Technology</td>
</tr>
</tbody>
</table>

Broad Category (for example in Chemistry - "Chemicals")

Account 12400 23201 43000 093400 --- the current instructional supplies budget

<table>
<thead>
<tr>
<th>Annual Cost</th>
<th>Previous Cost</th>
<th>Amount of Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>4500.0</td>
<td>1471.0</td>
<td>3029.0</td>
</tr>
</tbody>
</table>

Type
Increasing Cost
How Long?
Ongoing/Recurring
Item to be shared with the following Department/Program: (Include any shared expenses)

Justification for Item (See Rating Rubric)
1. Is it necessary for students to succeed in a series of courses?

The department does not currently have enough funds to operate during the year. The current amount will not cover the basic kits need for the fundamentals class. This leaves the solar pv class, the solar thermal class and the electric car classes with no monies for operating supplies.

2. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

Students cannot re-build the systems from year to year because there are no supplies. Wire, solder, fittings, flux, battery cables, connectors, etc are not available for the students. We are forced to teach "this is how you would do it on an actual job site" rather than having the students actually experience what they will be doing.

3. What student learning or other outcomes are expected? Is it important to the achievement of student goals? How will these outcomes be measured for future planning? What data or evidence supports your request?

Student learning outcomes are diminished. We can explain the design features and what the students would be expected to do, but cannot allow them to experience the actual work.

Students leave the classes with the basic knowledge of the subjects but no hands-on work to provide employers.
Program Summary
ELEC-2011

Instructions: after reviewing your data and reports from all other sections of your program review, use this form to briefly summarize all of the information you have provided by closing with your concluding remarks (e.g. an executive one-page summary) for your entire program review.

I. Assessment of Previous Program Reviews:
1. What resources have you been granted from your previous program reviews?
2. Please assess how these resources have been used to improve access, learning outcomes and student success in your program?
3. What changes have you implemented based on previous program reviews?
4. What results have you found?

This is the first full program review for the Electronics Technology discipline. This discipline is growing rapidly in Green Technology. This program has grown from one fundamentals class to a solar installer's class and an electric vehicle conversion and hybrid maintenance class. 2012 classes are a residential solar design and installation class, a solar thermal design class and an alternative energy class. Additional resources will be required as Alternative Energy grows in the State of California.

II. Requests Summary:
1. Please summarize the main requests you have made in this program review in order of your priority starting with the most important one.
2. Summarize briefly why you want each one.
3. Summarize your overall rationale.

We are asking for funds to help establish the program. We need some basic equipment to provide the students with the hands-on experience to go with the design and installation information.

a) Alternative Energy Class needs small kits for teaching wind and solar thermal

b) Solar PV needs two inverters

c) Solar Thermal needs design software, a simple drain-back solar thermal system, an
indirect water system and a direct water heating system.

d) Electric Car Class needs additional parts to upgrade the donated CitiCars

III. Other concluding remarks.
1. Please rank the instructional equipment requests, technology requests and other instructional materials requests sections. Please comment especially on any specific priorities without which this program cannot function.

With the growing popularity of solar energy, it is important for College of Marin to support programs on the leading edge of technology and community interest. Since these courses are new to College of Marin, we do not have many supplies or equipment. Because of the large community interest and involvement in these courses, it is important to support them by providing instructional equipment and supplies. The electronics program in cooperation with the ACRT program are community leaders in teaching electrical conversion and hybridization. I recommend we support their needs for equipment and supplies so they can continue with their successful work. The program cannot exist without a supply and equipment budget. I support the ranking that the instructional staff has submitted.

2. Please comment if additional units, faculty, or staff have been requested.

No faculty needed at this time. We have one part time faculty member who is doing an excellent job of providing instruction in solar power, electrical vehicle conversion and electronics.

3. Other comments

This program has been growing in popularity over the last several years. We are in the process of developing new certificates of achievement for both solar and electric car technology.