



SUCCESS FACTORS for DEVELOPING Solar Training Centers



Lessons learned
Best practices

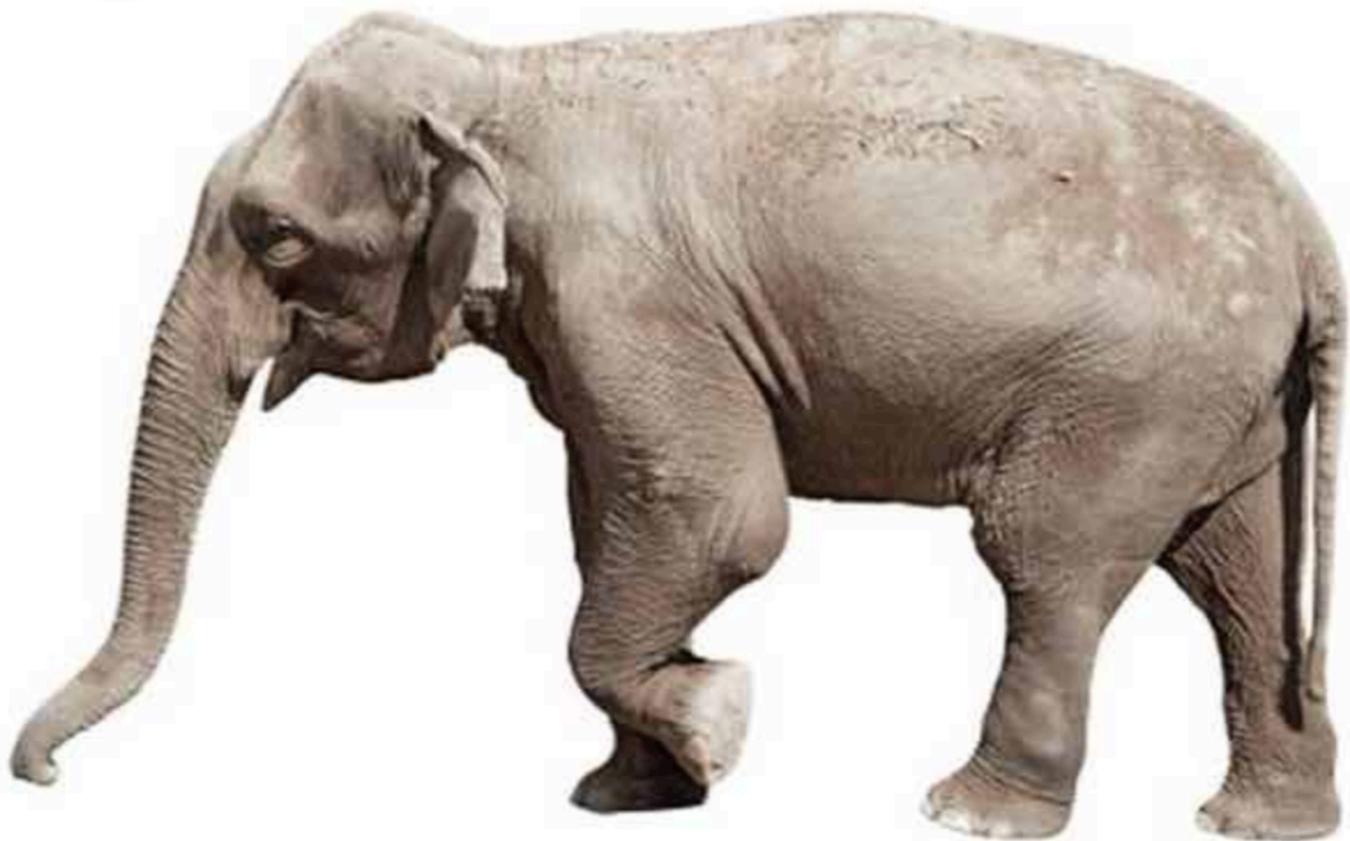


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www.johnnyweiss-solar.com



*The climate emergency has created an urgent challenge.
We must now dramatically scale our workforce development efforts.*

SCALE!!!



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Six Factors for Developing Quality Solar (PV) Training Centers

1 - QUALITY FACILITY (practical - Hands-on)

2 - ACCREDITATION and CERTIFICATION

3 - STRATEGIC PARTNERSHIPS

4 - WOMEN and DIVERSITY INVOLVEMENT

5 - APPROPRIATE CURRICULUM

6 - DEDICATED FULL-TIME STAFF



Solar Energy International- SEI's mission is to provide industry-leading technical training and expertise in renewable energy to empower people, communities, and businesses worldwide.



Why? Because we envision a world
powered by renewable energy!

1 SUCCESS FACTOR - A QUALITY FACILITY

REQUIREMENTS:

-Permanent

-Affordable

-Accessible

-Housing for students and instructors (?)



A QUALITY FACILITY

OUTDOOR LAB YARD

Simulates practical real world conditions

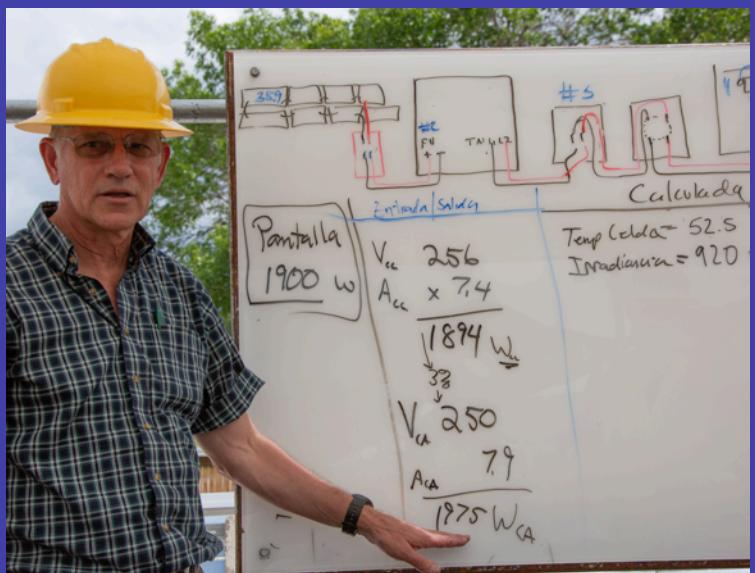


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A QUALITY FACILITY

Hands-on!



**Necessary for vocational
technical training**

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A QUALITY FACILITY

Outdoor training is challenging



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A QUALITY FACILITY

Safety FIRST!



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A QUALITY FACILITY

CLASSROOM

High quality audio/visual capability with reliable internet



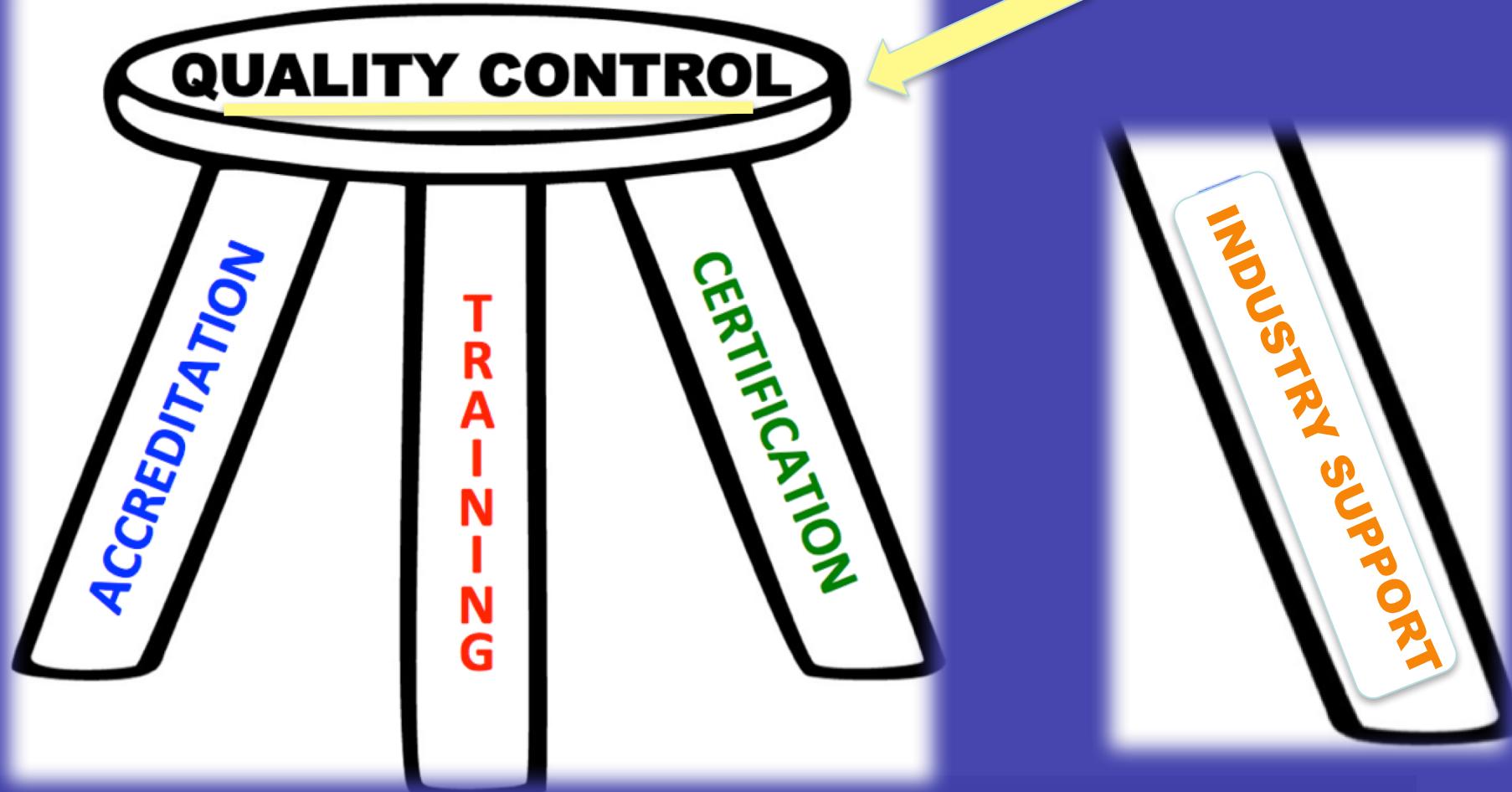
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2 SUCCESS FACTOR

ACCREDITATION AND CERTIFICATION

For *Big Picture* Success



Training deserves significant Industry Support!

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Training provides a *Record of Completion*



INDEPENDENT ACCREDITATION

Oversight Agency - **IREC**

Interstate Renewable Energy Council

Credibility and accountability*



SOLAR PROFESSIONALS CERTIFICATE PROGRAM

Residential and
Commercial Photovoltaic
Systems Certificate

Battery-Based
Photovoltaic Systems
Certificate

Solar Professionals
Trainer Certificate

Solar Business and
Technical Sales
Certificate

International and
Developing World
Applications
Certificate

Renewable
Energy
Applications
Certificate

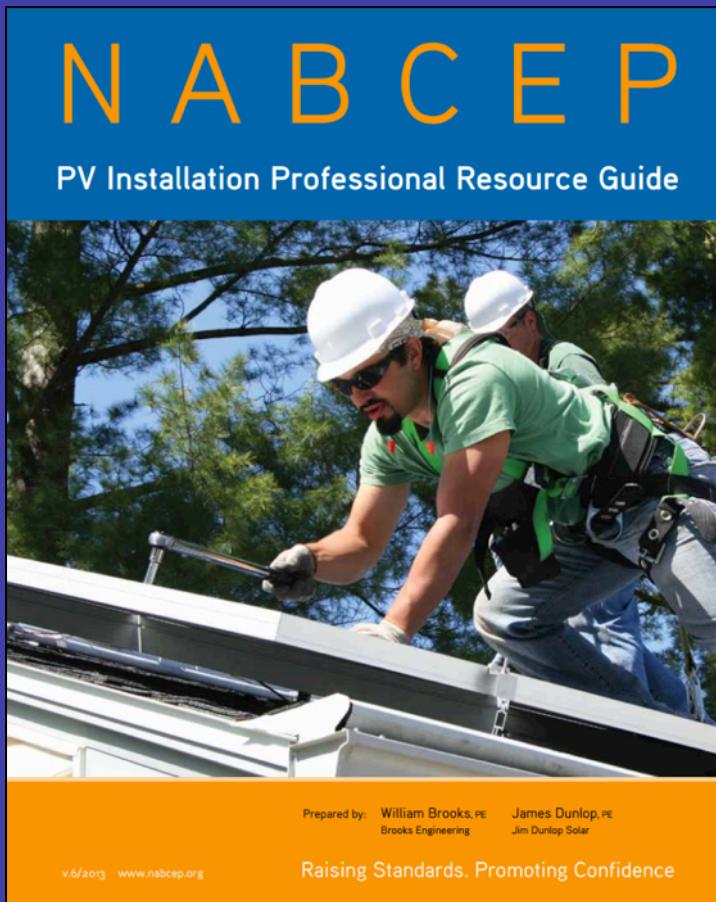


The Solar Professionals Certificate Program
– to prepare for a career in the solar industry.

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INDEPENDENT *CERTIFICATION*



**North American
Board of Certified
Energy Practitioners**

Value of third party certification*

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3 SUCCESS FACTOR STRATEGIC PARTNERSHIPS

- *Original Equipment Manufacturers (OEMs)*
- *Regional Hardware Distributors*
- *Local Installers/Dealers*
- *Non-Governmental Organizations (NGOs)*
- *Government Agency Support*



INTERNATIONAL SOLAR INDUSTRY RELATIONSHIPS



4 SUCCESS FACTOR

COMMITMENT to WOMEN'S INVOLVEMENT + DIVERSITY



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*Additional hands-on
practice opportunities*

It's time for Affirmative Action!



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5 SUCCESS FACTOR APPROPRIATE CURRICULUM

Considerations: Cultural - Technical Level - Duration



LAKOTA RESERVATION – PINE RIDGE, SD USA



HENRY RED CLOUD – SOLAR WARRIOR



Red Cloud RE Center (RCREC) Lakota Res Pine Ridge, S.D.



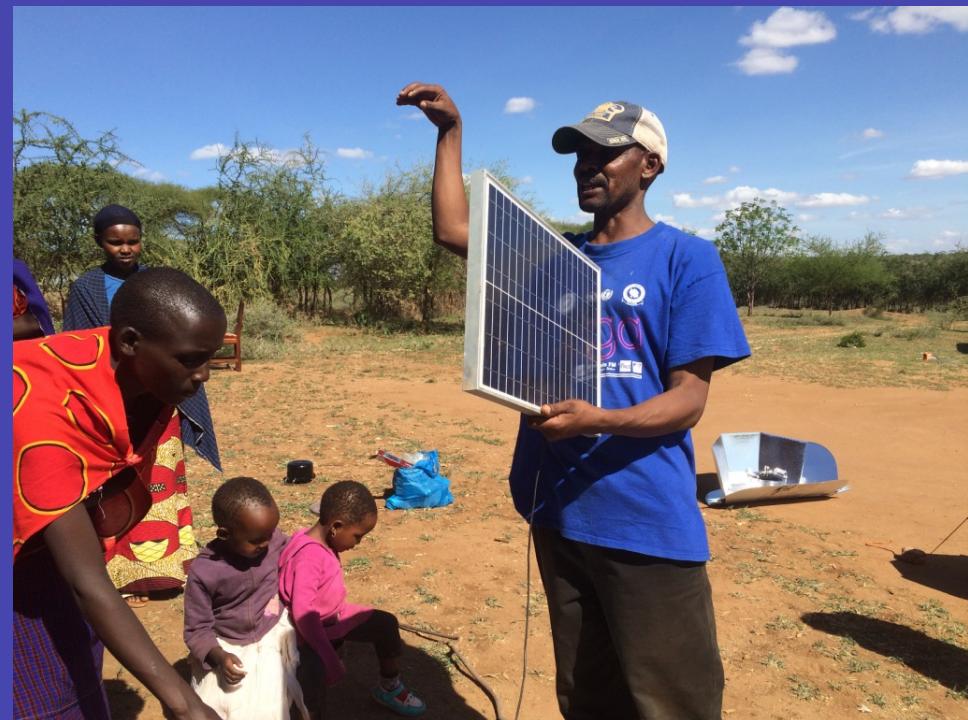
www.redcloudrenewable.org

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**APPROPRIATE
CURRICULUM**

www.RUCOSUO.or.tz
RUral COmmunity SUpport Org



Maasailand Tanzania

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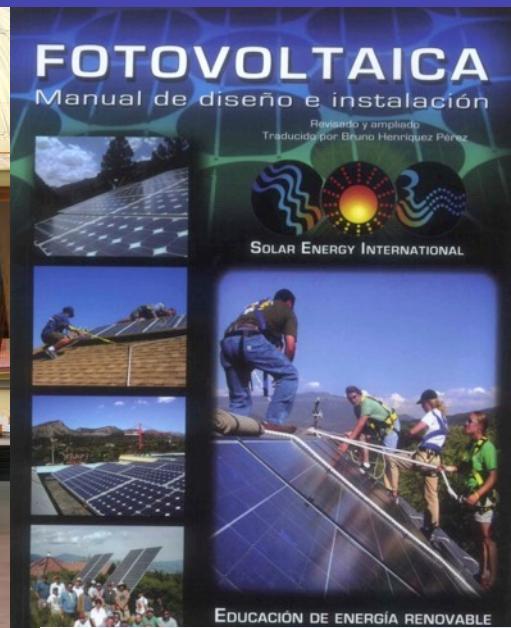


End User Training Example:

Teaching battery state-of-charge using a balloon



SEI's Programa Hispano Costa Rica Campus



Solar Energy International

TEACHING MATERIALS TEXTBOOKS & WORKBOOKS



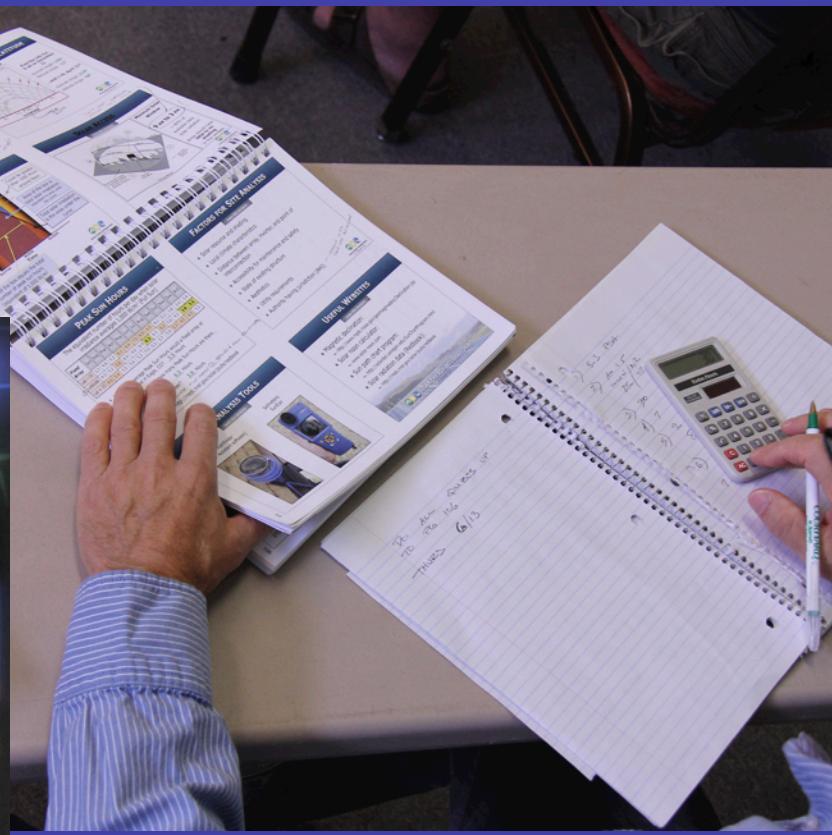
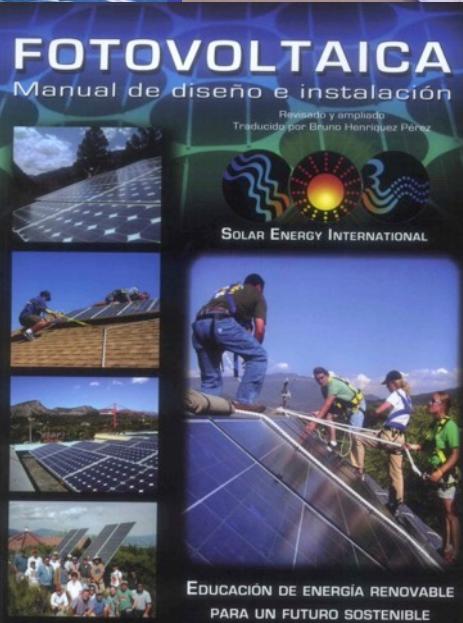
**SOLAR ELECTRIC
HANDBOOK**

Photovoltaic Fundamentals and Applications

Second Edition



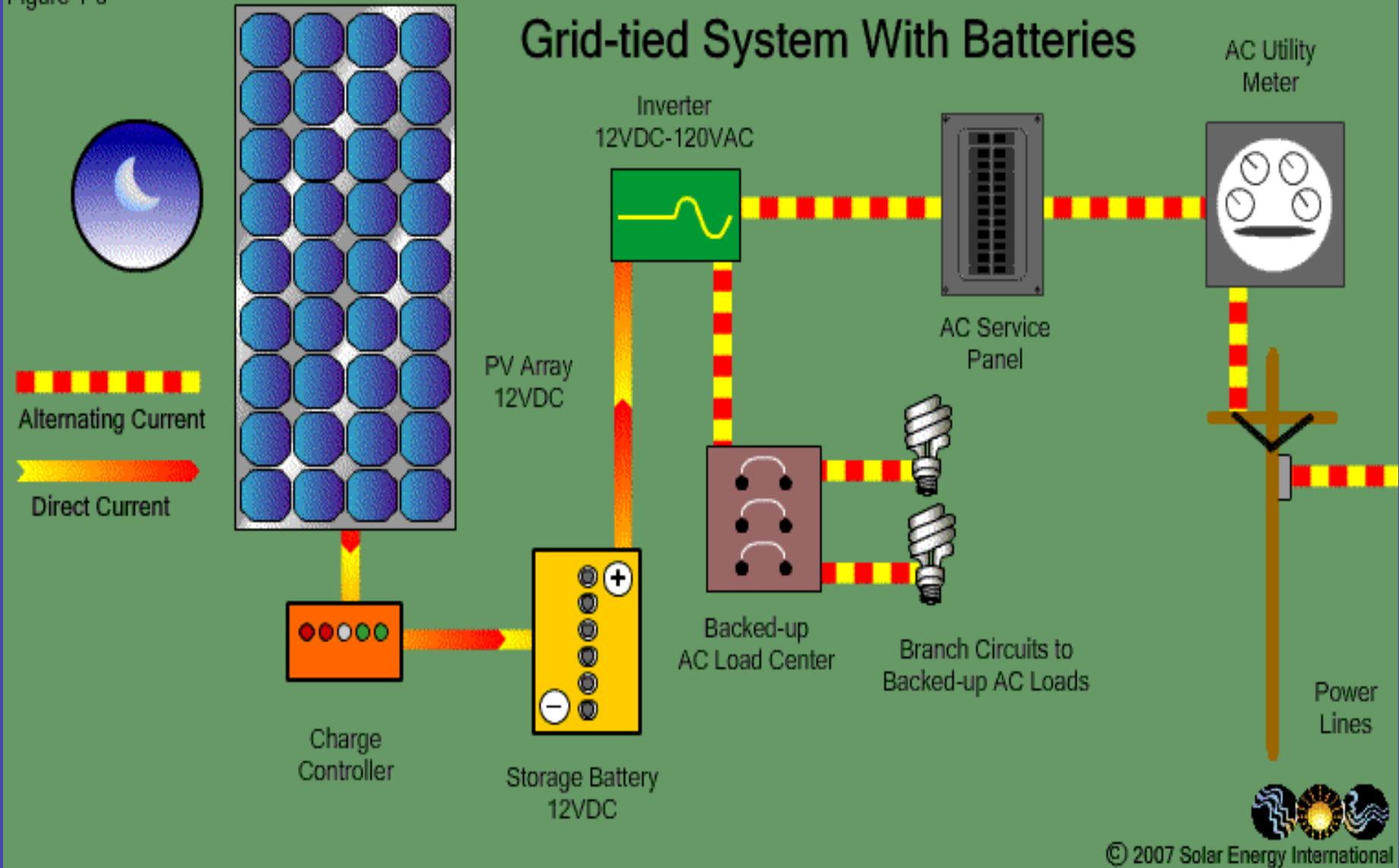
SOLAR ENERGY INTERNATIONAL
renewable energy education for a sustainable future



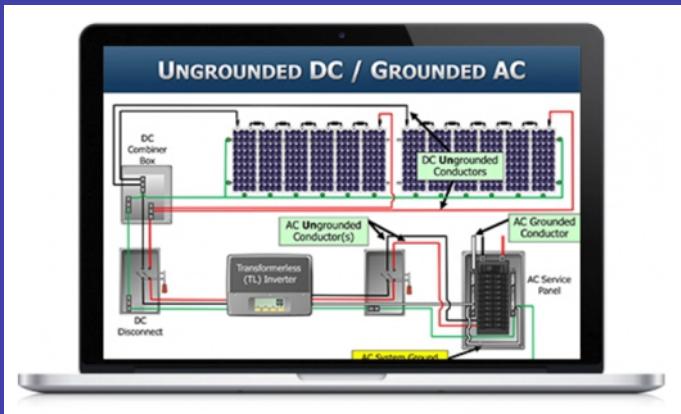
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Figure 1-6



ONLINE TRAINING and 'ALTERNATE DELIVERY' IS THE FUTURE AND NOW!



Mobile devices are
transforming educational delivery!



Lukas Karlongi
Maasai Community Leader



6 SUCCESS FACTOR DEDICATED FULL-TIME STAFF



OUR MISSION

To provide industry-leading technical training and expertise in renewable energy to empower people, communities, and businesses worldwide.

ABOUT SEI

MEET THE SEI TEAM

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GLOBAL SOLAR DEMAND

Global PV Demand, 2007-2022E



Strategic plan to SCALE the Global Work Force

- Improve current system process/efficiency
- Grow instructor base by training trainers
- Embrace new educational delivery technology
- Strengthen partner relationships

The way forward includes developing quality
Solar Training Centers.



TIME TO DRAMATICALLY SCALE UP THE SOLAR WORKFORCE!

Let's work together www.solarenergy.org



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