

Solar Schools

Brighter Future



An initiative of the
International Solar Energy Society
In conjunction with
Earth Day 2000

Introduction

Solar Schools – Brighter Future, showcasing shining examples of schools around the world, was initiated by the International Solar Energy Society (ISES) to be part of the **Earth Day 2000** worldwide celebration.

As global warming, increased air pollution, and environmental degradation become increasingly critical, positive examples of what can be done now to mitigate these problems are needed for both decision makers and the public. The need to move from non-renewable, highly-polluting fossil fuels to an energy future based on clean, renewable energy is a worldwide concern. To help catalyze this paradigm shift toward a sustainable energy future, ISES presents **Solar Schools – Brighter Future**.

This first edition of **Solar Schools – Brighter Future** includes a description of the schools' solar systems as well as examples of artwork and essays by students. The student's creative work describes their experiences and expresses their feelings about how the solar systems help in their educational process, save energy, and improve our environment.

This initiative will not end with Earth Day 2000. Its objectives are to demonstrate the long-term importance of teaching students about sustainability and designing schools to be environmental teaching tools. The schools included in this publication are just examples of the hundreds of schools throughout the world that are implementing solar energy systems—not only to save energy costs, but to help save our planet. These solar energy systems range from small photovoltaic systems for one-room schools in South Africa to large, 15,000 square meter schools in the United States that use natural daylighting for the majority of lighting needs.

All these schools have one common element—the solar system is sending a clear message to the students that there are environmentally-sound energy options that can be implemented today. The students in these schools are learning first-hand the value of solar energy and environmental stewardship.

If you are interested in seeing more examples of solar schools or are in a solar school and want to be included in next year's publication, contact us at:

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The International Solar Energy Society, with 30,000 members in over a hundred countries, has been promoting the use of solar energy since its formation in 1954. Through decades of hard work, our members have helped to significantly advance environmentally sound alternatives to fossil fuel and nuclear technologies. Many of these clean alternatives are viable now.

Recognizing that solar schools will mean a brighter future for the world, this initiative was funded by Innovative Design, Raleigh, North Carolina, USA.

Myeka Secondary School

Inanda, Republic of South Africa

"On the whole the school is ready to deliver on quality education - thanks to the solar technologies.

You will never understand the wonderful impact solar has on rural education."

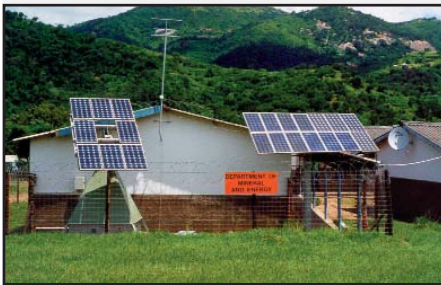
Melusi Zwane, Principal / Headmaster
Myeka Secondary School

Myeka is a public rural school. Although it is within 50km radius from the city of Durban, it falls outside the Durban Metropolitan Region. It is characterized by the lack of basic economic and social development infrastructure. There are no telephone lines, no grid electricity. Dirt roads which are poorly maintained are impassable when wet. The school starts from grade 8 to grade 12. It has 800 average enrollment. The majority of youth are unemployable because of the lack of marketable skills.



South Africa • Solar Energy Society of Southern Africa

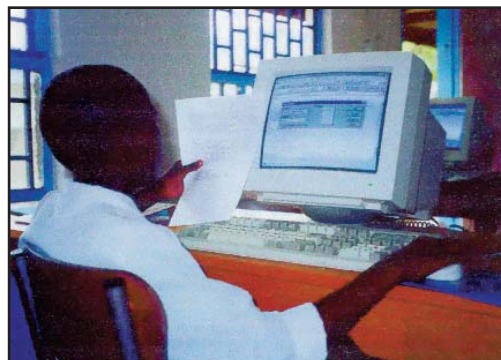
benefits



The solar system implemented at Myeka Secondary School is an off-grid, stand-alone photovoltaic array providing electricity for the entire school's energy usage. The solar system is having a tremendous impact on the education process of this rural school.

Solar generated electricity has revolutionized learning and teaching in Myeka and its neighboring schools. Solar has led to the acquisition of the following world class learning equipment: 20 computers, a television set and a VCR, an overhead projector, the Learning Channel & internet linked up to satellite, CD copiers, and a copy printer.

The equipment has had a huge impact on the enhancement of the culture of teaching and learning. Since teachers themselves had first to learn how to use the equipment before passing the skill on to learners, it has been an exciting experience. The excitement has rubbed off onto learners. All learners want to have access to the computer center. The school drop out rate has declined considerably over the past two years. This could be attributed to the expectation that the acquisition of computer skills will make them employable. The number of learners who want to enroll in our school has increased dramatically over the last two years. Ironically, the increase has had a challenging impact. It has put a strain on limited resources.



✓ Photovoltaics

Information

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Telephone:
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Size:
110 square meters
Number of Students:
845
Grades:
8th grade to 12th grade
Year School Constructed:
1976
Year Solar System Completed:
1996



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Essay

The Learning Revolution

Solar energy has not only changed my school life, it has brightened up my future as well. I am sixteen years old and have lived in the rural area for the past fourteen years. In all these past years, I used a candle stick to study and do my homework. The chalkboard has been the mainstay teaching aid at school.

When a few solar panels were installed at school in 1996, I did not have even a faintest notion of how it was going to work. A few months later, we received an overhead projector. That was the beginning of a new school experience. The following equipment was later received: twenty computers, two television sets, and a video machine. Recently we have been connected to the Learning Channel Campus and the internet through the satellite.

Learning is now going to be research oriented. That is, we shall use worksheets and we shall use the Internet as the main source of information. In the past we spent much of our time copying notes from the chalkboard.

The school has set itself a new vision for the new millennium. By the year 2005 it wants to produce learners who will follow careers in the field of science, technology, engineering, medicine and others. This was a far fetched dream a few years ago.

I have learned that the electricity generated from coal and water is a hazard to our planet. On the other hand, I have learned, with amazement, of how the use of solar electricity could save the world from pollution. I have taken a decision that I will do whatever it takes to contribute to the campaigns aimed at saving our planet from hazard of pollution.

Solar energy has brightened my future and it is destined to brighten the future of millions of others.

SAMMATHA DLOMO.
Samantha Dlomo, 11th Grade

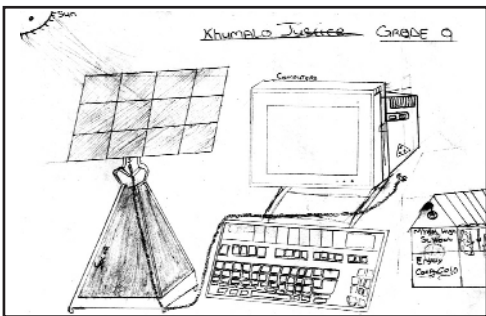
Myeka Secondary School

Inanda, Republic of South Africa



S'Bonelo Mnyandu, 9th grade

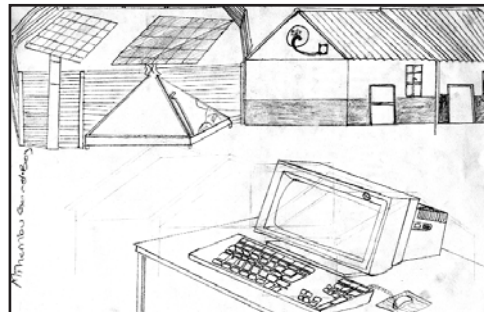
Artwork



Khumalo Justice, 9th grade



Peaceman Hlamisa, 9th grade



Mthembu Good-Boy, 9th grade

Myeka Secondary School

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