



De sociaal-economische bijdrage van LED verlichting aan duurzame groei in het Caraïbisch Koninkrijk

Harry Verhaar

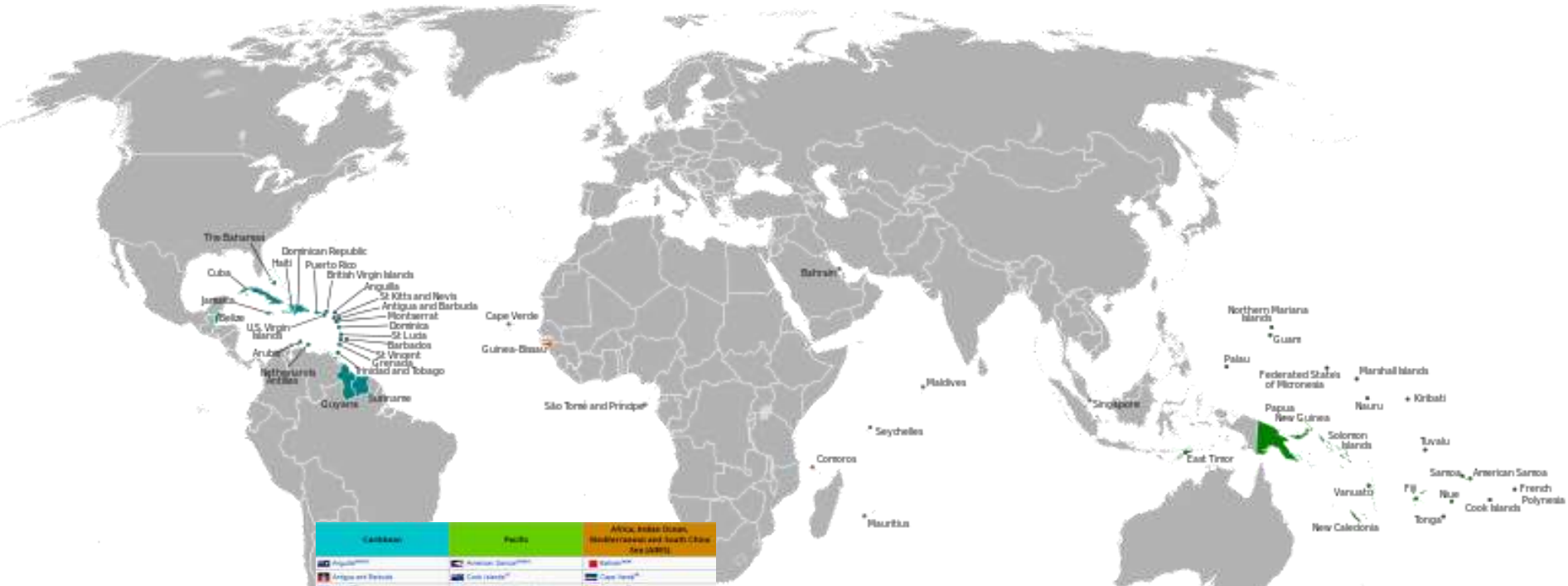
Head of Global Public & Government Affairs, Philips

Lighting
Light Expo 28 November 2013, Den Haag

PHILIPS

Island States across the World (SIDS)

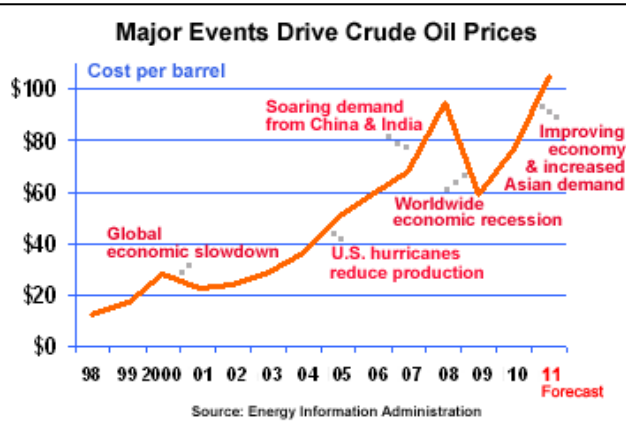
Shared Sustainable Development Challenges



Caribbean	Pacific	Africa, Middle East, Southern Europe, and South Asia (See SIDS)
Anguilla	American Samoa	Bahrain
Antigua and Barbuda	Cook Islands	Cape Verde
Aruba	Federated States of Micronesia	Comoros
Barbados	Fiji	Guinea-Bissau
Belize	French Polynesia	Maldives
British Virgin Islands	Guam	Mauritius
Cayman Islands	Kiribati	Sao Tome and Principe
Cuba	Marshall Islands	Seychelles
Curaçao	Nauru	Singapore
Dominican Republic	New Caledonia	
Dominican Republic	Niue	
Haiti	Palau	
Jamaica	Samoa	
Saint Kitts and Nevis	Tokelau	
Saint Lucia	Tuvalu	
Saint Vincent and the Grenadines	Vanuatu	
Suriname	Wallis and Futuna	
Trinidad and Tobago	French Polynesia	
United States Virgin Islands	Cook Islands	

52 islands states

Sustainable Development Challenges



The Great Food Crisis of 2011



26 December 2010 Last updated at 08:42 GMT

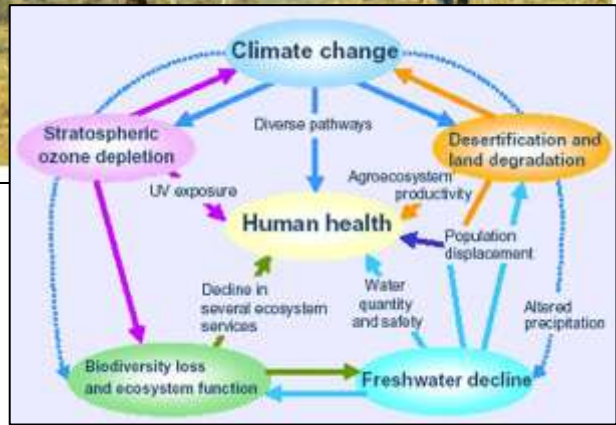
China will cut rare earths export quotas

China has said it will cut exports of rare earth minerals by 10% in 2011.

World manufacturers are heavily reliant on China for these minerals, which are essential for making many electronic goods, such as TVs and PC monitors.

China provides 97% of the world's supply of these minerals. The US moved more last year.

Rare earth minerals have been a thorny trade



BBC NEWS

ONE-MINUTE WORLD NEWS

Page last updated at 08:40 GMT, Monday, 2 February 2010

Water - another global 'crisis'?

By Richard Black
Environment correspondent, BBC News website

Deeper, more intense rains may reduce the water available to farmers

SUNDAY, FEBRUARY 28, 2010

Financial crisis or raw material crisis?

Our societies are dependent on fossil fuels in order to operate. No other fuel is so concentrated in energy than crude oil derivative products. The reigning consumption-oriented societies rest on one

The Core of the Challenge

From a Linear to a Circular Society

- **Lowest 1st cost**
 - Behaviour
 - Processes
 - Judgement
- **Linear Society**
 - Extraction
 - Consumption
 - Disposal / emission
- **GDP**

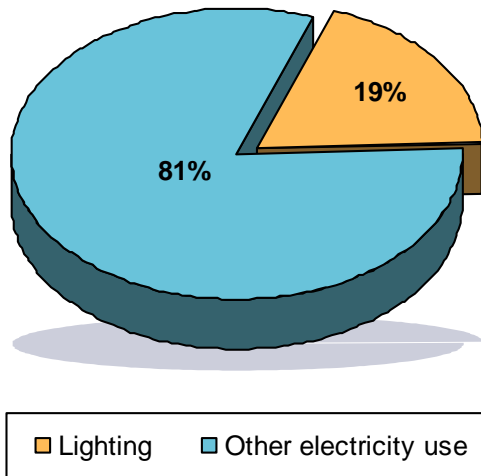


- **Lifecycle value**
 - Economical
 - Ecological
 - Social
- **Circular Society**
 - Resource efficiency
 - Energy; Materials
 - Water; Food
- **Quality of Life**

The role of Lighting

Four drivers for action

- Rising energy prices
- Climate change
- Security of Supply
- Economic Growth



Our value proposition



Energy Efficient
Lighting Solutions

Potential savings 40%

	Global
Electricity cost/yr (Bio €)	128
CO ₂ emissions/yr (Mio tons)	670
Car emissions@10kmile/yr(Mio)	260
Power plants (at 2TWh/yr)	642

LED Innovation for Homes & Hospitality

Time magazine - The 50 Best Inventions of 2009

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The 50 Best Inventions of 2009

From a rocket of the future to a \$10 million lightbulb, here are TIME's picks for the best new gadgets and breakthrough ideas of the year

Select a Section: Story All Best and Worst Lists

The 50 Best Inventions of 2009 > The Best Inventions

The \$10 Million Lightbulb

3 of 52 View All

Be the first to rate this invention.

50 100

With the flick of a switch, Philips Electronics may have just dramatically lowered America's electric bill. In September the Dutch electronics giant became the first to enter the U.S. Department of Energy's L Prize competition, which seeks an LED alternative to the common 60-watt bulb. Sixty-watt lights account for 50% of the domestic incandescent market; if they were replaced by LED bulbs, the U.S. could save enough electricity per year to light 17.4 million households. If Philips wins the L Prize, it will claim a cash award and federal purchasing agreement worth about \$10 million.

Philips' LED bulb emits the same amount of light as a 60-watt incandescent bulb but uses only 10 watts of power.

DOE L-Prize winner (Aug 3 2011)



- 10W LED (25,000 hours) replacement for 60W light bulbs => 50% of domestic incandescent market
- Electricity savings enough to light 17.4 million Households

LED Innovation: HUE

Forbes magazine - The best product of 2012



Philips hue: the 'world's smartest' LED lightbulb that saves you time during Red Alerts

By Daniel Cooper posted Oct 29th, 2012 at 10:36 AM



LED Lighting in Offices & Hotels

Productivity, Ambience & Identity with energy efficiency



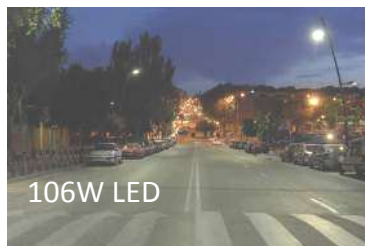
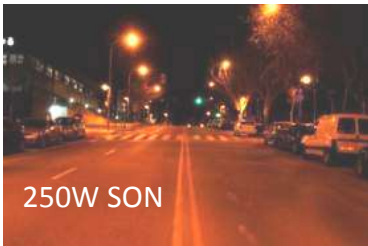
LED Lighting for Hotels, Restaurants & Casinos

Ambience & Quality for a unique Guest Experience



LED Innovation in Outdoor Lighting

Large energy saving potential



67%
Energy
saving



Solar-LED Lighting

United Nations For Climate Change Conference in Durban 2011



China



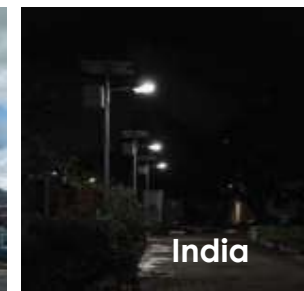
Indonesia



Indonesia



Thailand



India



China

Philips Community Light Centers

Solar-LED lighting for socio-economic development



Policy Initiatives

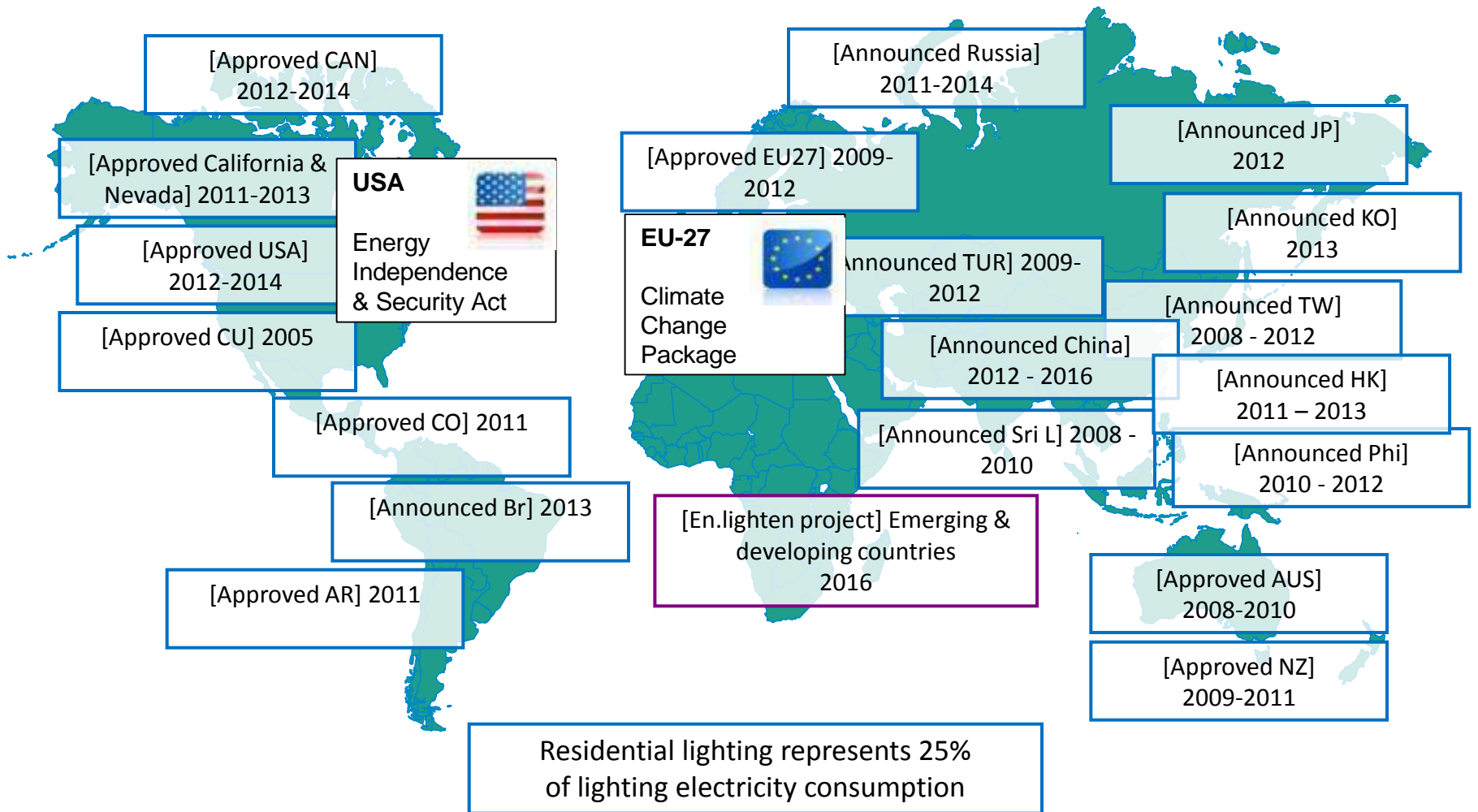


Energy Efficient Lighting Solutions / Sustainable Development

High political and public awareness achieved and policy measures being defined



Global phase-out incandescent lamps





You are here: **Country Support** » **Country Lighting Assessments**

Country Lighting Assessments

tool by ammap.com
enter country name:



PHILIPPINES

Total Electricity Consumption and CO2 Emissions from Fuel Combustion

49.2 TWh
71.8 Mt of CO ₂

Efficient Lighting Policies in place

The Government of the Philippines with GEF support initiated in year 2006 the Philippine Efficient Lighting Market Transformation Project (PELMATP) to move towards efficient lighting by integrating various energy efficient lighting programs and practices into standards, labeling programs and promotional activities. Building on PELMATP achievements, the ADB-supported Philippine Energy Efficiency Project (PEEP) was initiated in 2008. As a result of these activities in February 2009, the President of the Philippines called for a ban of incandescent lamps by 2010. The Philippines has become one of the first Asian countries to ban incandescent lamps.

Benefits from switching to efficient lighting

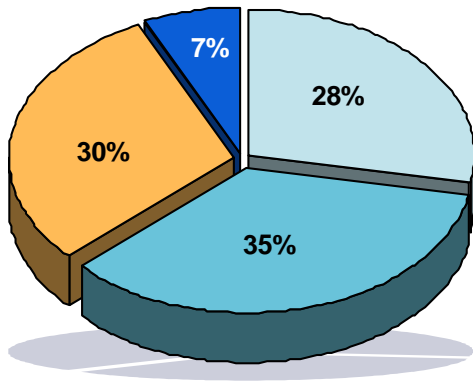
1.7 TWh yearly reduction in lighting electricity consumption	=	1 medium size coal-fired power plant avoided
0.8 Mt CO ₂ reduced per year	=	200 000 mid-size cars off the road
180 million USD saved yearly		

- Global Partnership Program
- Efficient Lighting Toolkit
- Country Lighting Assessments**
- What are Country Lighting Assessments?
- Energy Savings Benefits
- Financial Benefits
- Climate Change Mitigation Benefits
- Conference Material**
- Regional Conference in Southeast Asia
- Regional Conference in the Middle East and North Africa
- Regional Conference in Latin America and the Caribbean

Assessment tools and methodologies

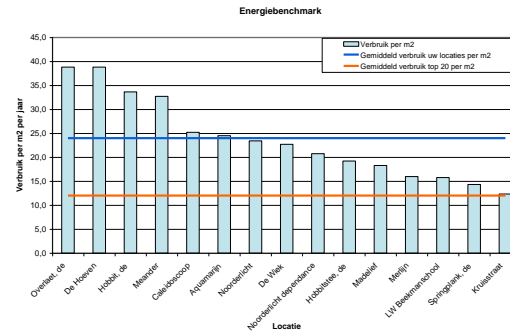


Awareness about energy usage



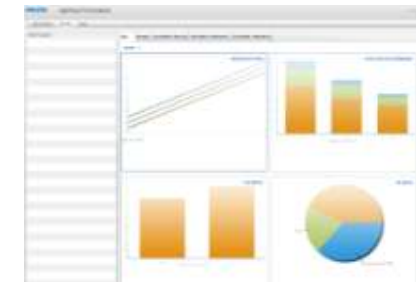
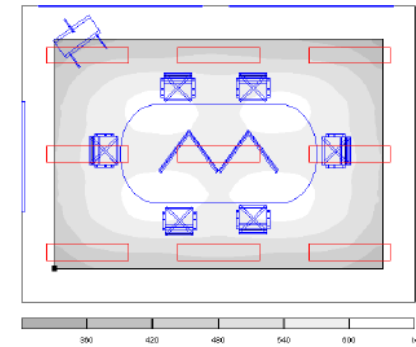
- Heating / Airconditioning
- Lighting
- Communication
- Other

Involvement in own savings potential



kWh/m²/yr

Lighting solution inc. total cost of ownership



Options for LED Outdoor Lighting

Philips GreenVision

GreenVision



Intelligent Lighting

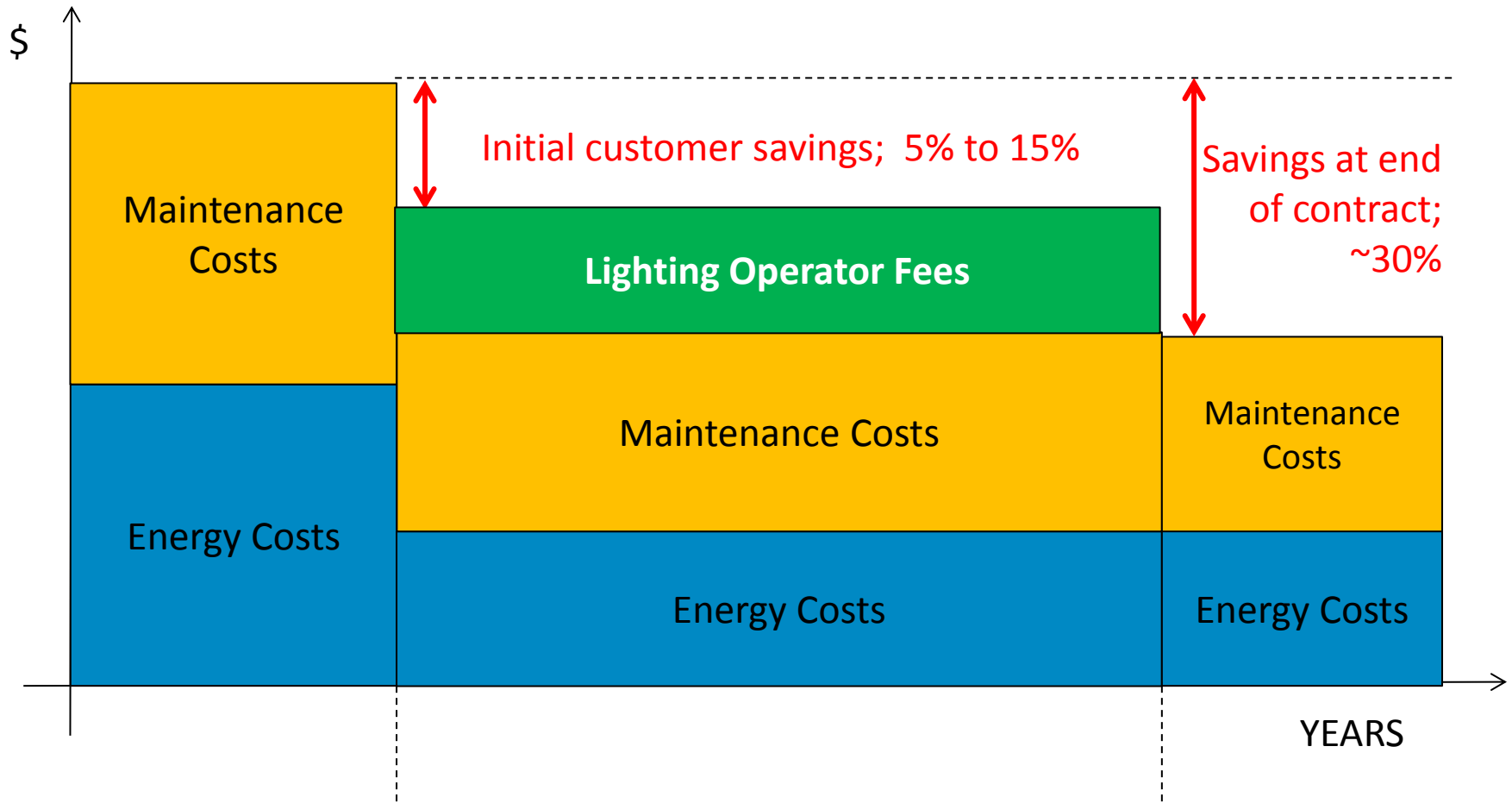


Solar-LED



- Energy Saving 50-70%
- Savings \$50-100 per lightpoint / year
- Pay-back 3-5 years
- Turnkey project / financing / lighting service delivery

Financing Mechanisms



UN SIDS Conference 9/2014 (Samoa)

A platform to showcase Caribbean Kingdom leadership

United Nations Home | DESA | UN Sustainable Development Knowledge Platform | SIDSne



UN Conference on Small Island Developing States Apia, Samoa | 2014

- HOME
- ABOUT
- PREPARATORY PROCESS
- MEMBER STATES
- PARTNERSHIPS PLATFORM**
- RESOURCES

- Announce a Partnership
- Share ideas for Actions & Partnerships
- Barbados Declaration



Promotional video by the Government of Samoa on the role of Partnerships at the SIDS 2014 Conference

REPORT
Voluntary Commitments and Partnerships for Sustainable



Sustainable Tourism

Tourism is one of the world's fastest growing industries and an important source of foreign exchange and employment for SIDS. The Future We Want outcome document of the Rio + 20 Conference includes commitments related to sustainable tourism under paragraphs 130 and 131. Partnerships in sustainable tourism for SIDS can include such areas as capacity building to promote environmental awareness, conserving and protecting environment, respect wildlife, flora, biodiversity, ecosystems and cultural diversity, and improving the welfare and livelihoods of local communities by supporting their local economies and the human and natural environment as a whole.

LED Lighting: a triple win

Environmental, economical and social benefits



- **End-users:** lower integral costs, user benefits (safety, comfort, well-being)
- **Environment:** lower resource usage, lower emissions
- **Economy:** improved product & service competitiveness, innovation, green jobs

