



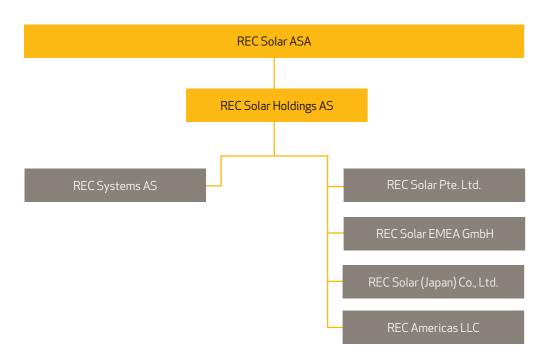
REC Solar ASA (REC) is a leading global provider of solar energy solutions and the largest European supplier of solar panels worldwide. At a state-of-the-art integrated production facility in Tuas, Singapore, the company converts polysilicon to wafers, wafers to solar cells and solar cells to high-quality solar panels.

Our 1,600 employees worldwide generated revenues of USD 647 million in 2013.

REC is a Norwegian public limited company, listed on the Oslo Stock Exchange, and is subject to Norwegian securities legislation and stock exchange regulations.

The company's corporate headquarters are located in Oslo, Norway. The operating headquarters are located in Singapore. REC has official sales offices in countries across Europe, the US, Asia and the Middle East.

In October 2013, the former Renewable Energy Corporation ASA was split into two separate entities: REC Solar ASA and REC Silicon ASA. Each entity is its own independent and pureplay listed company. REC Solar ASA shares were subsequently listed on the Oslo Stock Exchange on October 25, 2013.



# CONTENTS 11 Electricity, Naturally **Environment And Climate** Letter From The CEO 11 Energy And Emissions About This Report Carbon footprint And Energy Efficiency 11 11 Governing Sustainability Waste Management Policies Water Management 12 13 Managing Sustainability Performance Sustainability In The Supply Chain 13 Certifications Stakeholder Relations 14 **Business Conduct Employee Relations** 14 Compliance **Customer Relations** Investor Relations 14 Corporate Governance 14 Economic Sustainability Community Engagement 14 People And Organization Memberships 10 14 Health And Safety **Product Responsibility** Health And Safety Work 10 Material And Product Safety 15 15 Safety Performance **Product Certifications** Recycling Of Solar Panels 15 GRI Index 16-19

04 REC Sustainability Report 2013 REC Sustainability Report 2013 05

# ELECTRICITY, NATURALLY

REC is a leading global provider of solar energy solutions with a strong brand and robust financial position. With more than 15 years of experience, we offer sustainable, high performing products, services and investments for the solar industry. Together with our partners, we create value by providing sustainable solutions that better meet the world's growing energy needs.

This means continuous focus on reducing the cost and enhancing the value of solar products, while keeping the highest level of business ethics in all activities, safety at the forefront, and always striving for a high environmental and governance standard.

Sustainability is integral to the way that REC does business. We acknowledge our responsibilities towards our shareholders, investors, employees, and society. We continuously seek to limit any negative effects caused by our activities.

## The REC Brand platform at a glance

Electricity, naturally.

Every person benefits from electricity directly from the sun.

We create value through efficient and sustainable solar products, services and investment opportunities together with our partners to better meet growing electricity needs globally.















ScanWafer AS established

Fornybar Energi AS established in November 1996

SolEnergy AS established

Renewable Energy Corporation established

ScanCell AS and ScanModule AB production started

Solar Grade Silicon LLC (SGS) established

Solar cell production in Narvik, Norway opened

Solar panel production in Glava, Sweden opened

Asimi and remaining shares in SGS

REC listed on the Oslo Stock Exchange in May 2006

Singapore chosen as new manufacturing site

Singapore investment decision made

FBR polysilicon production started at Silicon III in Moses Lake, USA

Official opening of REC Silicon III and IV in Moses Lake, WA, USA

Official opening of REC Tuas, Singapore

REC ScanModule AB in Glava, Sweden closed

Closure of all Norwegian production

Split of REC Solar ASA from . Renewable Energy Corporation ASA

REC Solar ASA listed on the Oslo Stock Exchange in October 2013



"2013 has been a year of significant change for REC"

# FROM THE CEO

2013 has been a year of significance for REC. The successful IPO in October established REC as a leading provider of solar energy solutions with a strong balance sheet. 2013 was also a turning point for REC after a challenging period for the solar sector. Improving market conditions, our strong position as a supplier of high quality solar panels and continued cost reductions had contributed to the improved margins in the last quarter of the year.

Sustainability is at the heart of our business – our products as well as the way we conduct our business. Our strategy is founded on the belief that solar will become a key source of electricity over the next decade. By delivering reliable, highperforming solar products and clean energy solutions, REC contributes to decarbonizing the energy mix.

Key sustainability achievements in 2013 include:

- Reduced waste and water consumption.
- Continued efforts to reduce the energy payback time of
- A strong positive trend in overall HSE figures
- A Memorandum of Understanding with the local trade union
- Donation of solar panels to schools and a mobile solar power plant in aid of the typhoon Haiyan in the Philippines

I am convinced that solar will play a critical role in meeting the growing electricity need within the ecological limitations that we globally face. The restructuring of the company combined with improved market conditions make REC well positioned to exploit strategic and operational opportunities in the solar sector.

Martin Cooper **REC Solar ASA** 

# ABOUT THIS REPORT

REC's sustainability reporting addresses the issues that are material to the company and our stakeholders. Since 2011, REC has reported according to the Global Reporting Initiative (GRI), and decided to continue this practice as a separate company. The GRI is internationally recognized, and its framework establishes a transparent means through which to report on the following six areas: economy, environment, labor, human rights, society, and product responsibility. The selection of reporting parameters is based on our assessment of material topics to our company, our industry and our key stakeholders.

The current report fulfills the requirement of a C level as defined by the GRI G3.1 guidelines. A table of all GRI indicators covered within this report is included on pages 16-19. This report covers the following topics:

- Governing Sustainability
- Economic Sustainability
- People and Organization
- Health and Safety
- Environment and Climate
- Sustainability in the Supply Chain
- Stakeholder Relations
- Product Responsibility

Data reported covers only sites operating through all of 2013. To allow comparison with our performance in 2013, data for 2012 has been re-presented, excluding data from the former Silicon division, which has spun off into a separate and independent company listed on Oslo Stock Exchange. All data is complete for REC as a whole, with the exception of environmental figures, which only cover REC's solar manufacturing sites.. The report only covers fully-owned REC companies. Data calculation is done in line with GRI methodology, unless otherwise specified. The report is not externally verified nor audited.



# **GOVERNING SUSTAINABILITY**

## **POLICIES**

The REC Policies on Sustainability define the REC way of working with sustainability both internally and in the various markets where REC operates. They were adopted by the new Board of Directors in October 2013 and the content meets the NUES standards. The policies are communicated internally and on the website. The REC Policies consist of the Business Conduct Policy, the Safety and Health Policy, the Environment and Climate Policy, and the Quality and Improvement Policy. The policies are governing documents for all REC activities. They are reviewed regularly by the Board of Directors.

- The Business Conduct Policy promotes transparency and accountability with the highest level of business ethics in all of REC's activities. The Business Conduct Policy supports sustainability, human rights, labor practices, business ethics, transparency and avoidance of corruption.
- The Safety and Health Policy targets zero harm to employees, contractors, partners, customers and members of the public.
- The Environment and Climate Policy shall maximize the positive contribution from renewable and climate-friendly solar energy at affordable prices.
- The Quality and Improvement Policy provides a continuous focus on quality and improvements in running operations.

## MANAGING SUSTAINABILITY PERFORMANCE

To ensure compliance with these Policies, REC sets annual objectives and monitors performance through specific KPIs, reports results monthly and quarterly, and executes audits at all levels in the organization.

The Board of Directors gets quarterly sustainability reports focusing on KPI scorecard and risks. It is a Board responsibility to ensure acceptable performance, also within the sustainability area.

We collaborate closely with our partners to create value through efficient and sustainable solar products, services and solutions that better meet the world's growing demand for electricity. To support the implementation of the REC's Policies, we have developed a comprehensive HSE management system which consists of 14 HSE principles and an assessment tool where all internal HSE processes are covered. Expectations and practical implementation methods are explained in order to secure and improve HSE standards and share best practices throughout REC. The assessment tool rates the implementation methods on a scale of Low – Average

– Good – Best Practice – World Class, according to the use of the REC Business System rules and principles.

All manufacturing plants perform self-assessments regularly according to the REC HSE principles, and the results are used for prioritizing improvement actions and programs.

### **CERTIFICATIONS**

To ensure quality in all parts of the production, REC uses the ISO 9001 certification as a framework. REC's manufacturing, utilities and infrastructure units in Singapore are ISO 9001 certified.

To further improve the environmental aspects of the production process, several REC units have implemented the ISO 14001 standard. The ISO 14001 is a framework to assist organizations in developing their own environmental management system. All business units in Singapore have achieved the ISO 14001 certification and are undergoing annual audits by a third party.

OHSAS 18001 is an international occupational health and safety management system standard intended to help organizations control occupational health and safety risks. The four manufacturing units in Singapore have implemented the OHSAS 18001, and achieved the certification in 2011.

## **BUSINESS CONDUCT**

REC sets high standards of integrity and believes that sound business requires value-based management and clear guidelines on ethics and sustainability.

The REC Code of Conduct is an integrity framework, built on the foundation of the REC policy of Business Conduct and the REC core values that describes the behavior expected of employees. Our core values are: Responsible, Experienced, Collaborative, and Straightforward.

The Code of Conduct contains practical instructions to help employees in their day-to-day work and is underpinned by standards and policies covering issues such as corruption and illegal payments. It is available in English and was revised and approved by the Group Management in August 2013. Every employee has to sign the Code of Conduct to acknowledge their commitment to adherence.

We have an internal whistleblower channel which allows our employees to report concerns or complaints related to REC's business conduct. REC investigates all potential integrity concerns and cooperates fully with law enforcement agencies. The Audit Committee will be informed of all complaints related

to accounting and auditing matters. The Board will be informed of specific complaints as required and will also be provided regularly with general updates of complaints received. No adverse action will be taken against an employee due to complaints submitted in good faith. Complaints can be made anonymously.

In October 2013, the REC Board adopted an Anti-Corruption Policy and related procedures. In connection with the implementation, 90 percent of the relevant employees and managers, especially within our sales, purchasing, and finance departments, have been trained by representatives of REC's Legal department. REC has a whistleblower channel available to both internal and external stakeholders. We take every accusation of corruption seriously, perform a thorough investigation, report to the Board of Directors and take the necessary actions. In 2013, REC had no corruption related incidents reported through the whistleblower channel. Management will follow up all incidents immediately and take the necessary actions.

## COMPLIANCE

Applicable laws, regulations, permits, codes, standards, practices, and other requirements are identified and complied with, and documentation is managed through formally controlled processes. Records are maintained and readily available.

In 2013, REC was subject to no legal actions for anticompetitive behavior, anti-trust or monopoly practices, and received no monetary or non-monetary fines for noncompliance in this area. Equally, REC was not subject to any legal cases regarding corrupt practices, discrimination or to fines for non-compliance with laws and regulations concerning the provision and use of any products and services in 2013.

REC has a range of HSE-related permits for operations at its sites, and maintains a record of any non-compliance as part of regulatory HSE requirements. Non-compliances constitute breach of permit, citations or violations identified by regulatory audits.

The number of new and open non-compliances represents an important KPI for sustainability, and is reported weekly, monthly and quarterly to ensure special focus from site management. No environmental permit breaches were registered in 2013.

## CORPORATE GOVERNANCE

The Board of Directors has the ultimate responsibility for the management of the Company and for supervising its day-to-day management. The Board of Directors regularly adopts and reviews the Company's strategy.

The Board of Directors seeks to provide effective governance of business and affairs to ensure long-term benefits of REC's stakeholders. Approved and implemented Corporate Governance principles are built on a set of rules and procedures, which, along with the charters and key practices of the Board Committees, provide the framework for the governance in REC. REC endorses the Norwegian Code of Practice for Corporate Governance issued by the Norwegian Corporate Governance Board (NUES).

All members of the Board of Directors are independent of the Company's Management. A majority of the members of the Board of Directors are independent of material business contacts. Two out of five board members are female.

The Board of Directors has adopted rules to ensure that the Board is informed of any possible interests of a member of the Board of Directors or a member of the REC's Management or close associates in any transaction or matter dealt with by the Board of Directors, as well as rules for the handling of such a situation. Under the whistleblower procedure, complaints from employees and other concerned parties are received and followed up by the Audit Committee established by the Board of Directors. The Board of Directors reviews its own performance, including the work of the Board of Directors committees, annually.

REC emphasizes transparency and equal treatment of its shareholders. The company regularly communicates with its shareholders and other interested stakeholders through quarterly and annual reports. The notice of a General Meeting and the proposed resolutions are sent to the shareholders and made available at the Company's website no later than three weeks prior to the date of the General Meeting.

## ECONOMIC SUSTAINABILITY

2013 was a turning point for REC after a challenging period for the solar sector. Improving market conditions, our strong brand as a supplier of high quality solar panels and continued cost reductions have contributed to the improved margins. REC Solar ASA was incorporated on July 15, 2013 and was listed on Oslo Stock Exchange on October 25, 2013, the same day that it acquired the solar entities previously owned by REC Silicon ASA.

Table 1 below summarizes the direct economic value generated and distributed by REC in 2013.

## PEOPLE AND ORGANIZATION

In January 2013, REC underwent a restructuring of the Solar Sales and Systems organizations in order to adapt to the changing solar markets, optimize our offering towards customer needs and simplify reporting lines. The Solar division business structure effective from February 1, 2013 was organized and managed as three independent regions:

- 1. Europe, Middle East, Africa, and South America
- 2. US and Caribbean
- 3. Asia Pacific

....

The three new regions merged the existing Sales and Systems organizations, aimed at providing clear focus for each region, allowing flexibility to tailor offerings towards customer needs and to reinforce one strong REC brand to the customers. The transition is in line with REC's ambitious vision; for every person to benefit from electricity directly from the sun.

In July 2013, further restructuring within REC was announced. The company would be divided into two entities, launching the Silicon and Solar divisions as independent, listed companies. Both companies aim to be industry leaders in their fields. After

the transaction in October 2013, REC has a strong financial base which provides a competitive advantage and a solid fundament going forward.

As a result of the split, the former corporate headquarters in Sandvika, Norway were downsized significantly and corporate functions and roles transferred mainly to Singapore for the solar business.

Table 2: Total workforce and turnover by December 31, 2013

Number and percentage	2013	2012	% Change
Total number of employees	1,567	1,471	7%
Number of full time employees	1,564	1,468	7%
Number of part-time employees	3	3	0
Percentage of female employees	40%	40 %	N.A.
Total number of resignations	300	489	-39%
Turnover (%)	21.2%	25 %	N.A.

The total number of permanent employees in REC as of December 31,2013 was 1,567. The total turnover rate for 2013 is 21.2 percent compared to 25 percent in 2012. This reduction in turnover rate was mainly due to efforts to increase employee engagement and motivations through action plans derived from the REC site-wide Engagement Survey conducted in May 2013.

Of the total 1,567 employees, the percentage of female employees is 40 percent, the same as in 2012. In the current REC Management Team, three of a total of nine executives are female.

REC and its subsidiaries are committed to equal opportunity

Table 1: Economic value generated and distributed

USD IN MILLION		2013
Direct economic value generated		649
	Revenue	648
	Other Income	-
	Interest income and other financial income	1
Direct economic value distributed		(618)
	Cost of material and changes in inventories and writedowns	(393)
Operating Cost	Other operating ecpenses	(141)
Employee compensation		(79)
Payments to capital providers	Interest expenses and fees	(3)
Income tax paid (-) / received (+)		(2)
Economic value retained		31

employment and practices. All employees and applicants shall be treated without regard to age, gender, sexual orientation, nationality, race, religion, disability marital situation or any other protected status. REC has succeeded in recruiting individuals and teams globally with the necessary competence, potential and cultural fit needed.

REC allows for freedom of association in line with international conventions, and works to ensure that employees are treated in a fair manner. Where employees are unionized and national regulations allows for collective bargaining agreements, REC will facilitate these discussions. On October 3, 2013, REC in Singapore signed a Memorandum of Understanding ("MOU") with the United Workers of Electronics & Electrical Industries ("UWEEI") to enhance the welfare of REC employees. Employees receive social and recreational benefits provided by both UWEEI and NTUC. REC subsidizes \$7 of their monthly membership fee.

In Singapore, all full-time employees are covered by group insurances covering life, health & surgical, permanent disabilities and death. In Europe REC provides insurance according to local legislation, and full-time and part-time employees are covered by the same benefits.

All working Singaporeans and their employers make monthly contributions to the Central Provident Fund (CPF). In Europe, REC pays into public pension funds according to law.

Table 3: Average sickness rate in 2013\*

	2013	2012
Percentage absence due to sickness	1.88	2.2

\*The sickness rate is calculated based on days of absence as percent of number of actual workdays per year per full time employee. This means that vacation and regular holidays have been excluded.

2013 saw a decrease in average sickness rate to 1.88 percent, compared to 2.2 percent in 2012, which is highly satisfactory. REC also encourages that all employees have annual performance reviews with their manager, covering both specified tasks for the period and development activities. In 2013, approximately 98 percent of the employees received these reviews.

Minimum notice periods regarding significant operational changes depend on local legislation. In Europe, employees are protected under the labour law and in Singapore, the notice period regarding operational changes is two weeks. REC had less than 10 employees in the US region at the end of 2013 and seeks to follow local best practice in relation to notice periods regarding operational changes.

## **HEALTH AND SAFETY**

## Health and safety work

Health and Safety has the highest priority in REC. We believe that all accidents, injuries, and occupational illnesses are preventable. Our target is zero harm to our employees, contractors, partners, customers and communities.

To achieve a world class safety culture, REC employees are involved in continuous improvement in their daily way of working. This includes assessing risk in all work activities to eliminate inherent risks or apply control measures.

At REC, extensive work has been undertaken to standardize all work instructions and risk assessments as part of the OHSAS 18001 certification process.

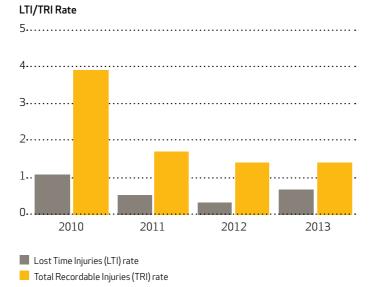
Another key area for continuous improvement is incident management. All employees are encouraged to register hazards and incidents in order to identify and implement preventive measures that can eliminate recurrences and reduce the total level of risk.

In Singapore, there are formal health and safety committees within each business unit, with both management and employee representatives that meet monthly to discuss and resolve issues to protect the work environment.

## Safety performance

A summary of REC's safety performance is provided in Figure 1 below. REC ended 2013 with no work-related fatalities in 4.3 million worked hours across the workforce.

Figure 1: LTI/TRI Rate



REC demonstrates world class safety standards with an LTIrate (number of Lost Time Injuries per million worked hours) of 0.7 and a TRI-rate (number of Total Recordable Injuries per million worked hours) of 1.4 in 2013. There is a strong positive trend recorded from 2010 to the present, however there was an increase in the LTI-rate in 2013 compared to 2012. The TRI-rate showed no change compared to 2012. REC will strengthen the safety culture in 2014 aimed at continuing the overall positive trend and continue to focus on systematic safety leadership and standardization throughout the organization. This includes setting clear performance and improvement targets for all units, weekly and monthly HSE job observations performed by management as well as extensive management and team involvement in each incident investigation. HSE performance and systems are developed, monitored, audited, and reviewed to identify trends, measure progress, assess compliance, drive continuous improvement, manage risks and provide assurance that governing processes are working effectively.

## **ENVIRONMENT AND CLIMATE**

REC is committed to maximize the positive contribution from renewable and climate-friendly solar energy at affordable prices globally. This includes maximizing the energy efficiency of its products, minimizing negative environmental impacts and carbon footprint as well as preventing pollution from all business activities and products. REC operates in compliance with national legislation and applicable external requirement related to the environmental aspects of its activities.

## Energy and emissions

Both REC and the solar industry in general depend on the safety and sustainability of solar electricity products. A summary of REC's environmental performance is provided below.

To ensure that REC's operation has minimal negative impact on the environment, efforts are continually made to reduce energy use and carbon emissions. In 2013, the total amount of electricity used at the REC production facility in Singapore was  $258\,\mathrm{GWh}$ .

Emissions of  $\mathrm{CO}_2$ -equivalents due to the generation of electricity have been calculated on the basis of natural gas power for the production facility in Singapore. This resulted in the indirect emissions of 123,783 metric tons of  $\mathrm{CO}_2$ -equivalents. In addition, the natural gas and diesel consumption was 0.2 GWh, resulting in direct emissions of 52 metric tons of  $\mathrm{CO}_2$ -equivalents. In total the energy consumption was 315 MWh/MW in 2013, and the total emissions of  $\mathrm{CO}_2$ -equivalents were 151 metric tons/MW.

At REC, there is a strong commitment to save energy. A 2.9 GWh reduction was achieved in 2013 due to several energy saving initiatives.

## Carbon footprint and energy efficiency

REC solar panels have a very light carbon footprint and low energy payback time thanks to continuous technological innovation and focus on energy efficient operations. To understand the environmental impact of the REC solar panel, REC commissioned the independent Dutch research institute ECN (www.ecn.nl) to analyze the complete lifecycle of an REC solar panel according to the standard ISO 14040 based on data from the first quarter of 2011. The analysis was conducted before the split of the former REC Group and covered both silicon and solar production. The next lifecycle analysis will be commissioned by REC in 2014/2015.

The 2011 lifecycle analysis showed that REC's silicon, wafer, cell and solar panel productions have record low carbon footprints compared to any other solar PV technology. We are constantly working to make an even lighter carbon footprint through innovation, technology, and optimization. For example, REC has increased the average power rating of the solar panels by almost 10 percent since the 2011 study was carried out, which contributes to a corresponding reduction of the carbon footprint.

A solar panel's energy payback time is the time it takes for the solar panel to generate the same amount of energy required for its manufacture. The lower this figure, the faster the solar panel can make a contribution to a cleaner energy future. The 2011 results for the energy consumed throughout the lifetime of a solar panel were in the lowest in the industry, even with the inclusion of recycling. In 2007, the energy payback time of an REC solar panel was 1.4 years. In the first quarter 2011, REC had reduced it to 1.2 years thanks to continuous technological innovation throughout the value chain. The increase in average power rating of solar panels and other improvements have reduced this further.

### Waste management

Material usage and waste are important aspects of REC's environmental policy and management system. REC continually investigates opportunities to enhance material reuse and recycling throughout the design and production processes, in order to minimize resource consumption. Further, REC works to reduce material and packaging, without compromising on quality.

In general, all waste from the manufacturing processes is sorted and recycled to a high degree with third-party waste management facilities. In 2013, REC delivered over 2,710 tons of material for recycling, which represents a 41 percent increase from 2012.

Waste reduction programs were established in 2010 to reduce the general waste by five percent through a three year period. By the end of 2013, REC had reduced general waste

12 REC Sustainability Report 2013
REC Sustainability Report 2013

by 77 percent from the 2010 baseline. Further, the goal was set in 2010 to reduce sludge containing hydrogen fluoride by 20 percent. By the end of 2013, REC had reduced sludge containing hydrogen fluoride by 67 percent over a three year period.

Moreover, REC set out to reduce waste water containing hydrogen fluoride by 35 percent over three years starting in 2010. By the end of 2013 REC had reduced waste water containing hydrogen fluoride by 100 percent from the baseline in 2010.

## Water management

REC used 1.6 million cubic meters of water in 2013 compared to 2.5 million cubic meters in 2012. Water used

for equipment and material processes is obtained using high-grade reclaimed water. It is produced from treated used water that is purified using advanced membrane technologies and ultra-violet disinfection. This treatment process is carried out by a Singapore public water supplier. There is currently no restriction on REC's water use, but due to cost, there are several internal recycling projects to reduce the consumption, which led to the total consumption decreasing by 37 percent in 2013. In 2013, REC discharged 1.4 million cubic meters of waste water, down by 21 percent compared to 2012. Waste water goes into the public sewer and has to meet quality requirements according to the Sewerage and Drainage Act, comprising a long range of substances, including e.g. heavy metals, salts, COD, SS and VOC.

2012

% Change

	2013	2012	% Change
ENERGY*			
Direct energy consumption (GWh)	0.2	0.8	N.A.
Electricity (GWh)	258	249	N.A.
Energy saved due to improvements (GWh)	2.9	3.5	N.A.
Total energy use (GWh)	258*	250*	N.A.*
CO <sub>2</sub> EMISSIONS*			
Direct emissions (MT CO <sub>2</sub> -eq)	52	204	N.A.
Indirect emissions from electricity (MT CO <sub>2</sub> -eq)	123,783	111,010	N.A.
Total CO <sub>2</sub> emissions (MT CO <sub>2</sub> -eq)	123,836	111,213	N.A.
Produced modules (MW)	820	722	13%
Energy per unit (MWh/MW)	315	346	N.A.
CO <sub>2</sub> emission per unit (MT CO <sub>2</sub> -eq/MW)	151	154	N.A.
EMISSIONS			
NOx (MT)	296.3	343	-14%
S0x(MT)	31.5	19	66%
Volatile organic compounds (VOC) (MT)	0	0	n.r.
Particular matter (PM) (MT)	0.4	1	-59%
HF (MT)	0	2	-100%
HCI (MT)	0.6	2	-72%
CI2 (MT)	1.1	3	-57%
NH3 (MT)	1.6	N.A.	n.r.
WATER			
Municipal water consumption (million m³/yr)	1.6	2.5	-37%
Waste water discharge (million m³/yr)	1.4	1.8	-21%
WASTE			
Recycled waste (MT)	2,710	1,926	41%
Non-hazardous waste to incineration (MT)	156	2,991	0%
Non-hazardous waste to landfill (MT)	0	0	0%

2013

	2013	2012	% Change
Hazardous waste treatment (MT)	5,421	9,056	-40%
Total waste (MT)	8,287	13,973	-41%
Material use			
Polysilicon (MT)	2,047	3,889	-47%
Recycled polysilicon (%)	33 %	18%	81%
Aluminium Process Pastes (MT)	276	267	3%
Silver Process Pastes (MT)	27	36	-24%
Glass (MT)	44,803	41,559	8%
Ethyl vinyl acetate (MT)	4.624	4,225	9%
Polyester backsheet	4,854	5,194	-7%
Aluminium (MT)	8,686	8,195	6%
Silicon carbide (MT)	20,227	10,872	86%
Recycled silicon carbide (%)	77 %	64%	21%
Polyethylene glycol (PEG) (MT)	14,828	15,361	-3%
Polyethylene glycol (PEG) (%)	96%	92%	4%
OTHER FIGURES			
Ozone-depleting substances (MT CFC-11 eq)	0	0	
Number of permit breaches	0	0	

- \* The basis for calculating energy consumption and CO<sub>2</sub> emissions was subject to change in 2013. Due to unacceptable uncertainty with regard to the quality of the data from the sales and systems offices, only data from REC's production unit in Singapore was included in the 2013 figures as opposed to 2012.
- \*\* Emissions have been calculated using the following standards: International Energy Agency: CO<sub>2</sub> emissions from fuel combustion highlight 2013, and 2012 Guidelines to Defra/DECC's GHG Conversion Factors for Company Reporting.

## SUSTAINABILITY IN THE SUPPLY CHAIN

Suppliers are important business partners for REC. REC seeks to ensure that activities in the supply chain are carried out in accordance with internationally recognized principles for human rights, working conditions, environmental management and anti-corruption efforts and comply with all applicable laws and regulations.

To be able to achieve our ambitious targets, REC seeks to contract services as well as the purchase, hire, or lease of equipment, and materials in a manner which ensures that REC's own sustainability policies are met, including audits and contractual obligations.

Our focus has been on implementing a standardized sourcing process for significant direct material suppliers to REC's wafer, cell, and solar panel production. Suppliers in these areas typically represent more than 75 percent of REC's annual spend.

Sustainability has formed a key part of supplier prequalification reviews, supplier audits, supplier performance

management, and supplier development. The sustainability issues cover human rights, freedom of association, child and forced labor, corruption as well as occupational health and safety.

By the end of 2013, 70 percent of direct material suppliers for REC have undergone audits on sustainability. Of these, none were identified as having significant risk regarding the sustainability issues.

## Stakeholder relations

REC's main stakeholder groups are its own employees, suppliers, customers, business partners, shareholders, potential investors, government authorities and the general public. We have transparent and regular dialogue with all of our stakeholders to ensure that we understand their issues and concerns and provide them with the required information.

Stakeholder engagement in REC takes on many forms, depending on the stakeholder group. Stakeholder identification is based on whom REC is directly responsible for, as well as those that are directly affected by our activities.

Through formal and informal channels of communications, we engage with our stakeholders on a regular basis.

## **Employee relations**

REC has 1,567 employees worldwide as of December 31, 2013, and employee involvement and engagement lies at the heart of our corporate culture and business system. Employees are regularly consulted on health and safety issues through the formal health and safety committees. REC also engages every employee and teams in daily improvement of the company's business processes. We do this through our REC Business System (RBS), where we aim to build a business culture on shared values, attitudes, goals and practices that drive extraordinary levels of continuous improvements amongst all employees.

### **Customer relations**

REC works hard to maintain excellent customer relations. REC communicates with customers continually through the global sales and support force, through circulating regular newsletters for specific groups of customers, visibility and presence at customer events, and through an annual Customer Satisfaction Survey. Customers can also provide feedback directly to REC through online contact details and feedback forms, available in English, German, and Japanese. REC boasts industry-leading customer programs including the REC Partner Program for distributors and project developers, and the REC Solar Professional Program for installers, which ensure closer collaboration between REC and its customers.

## Investor relations

REC has a strong relationship with its investors and senior management frequently engages in dialogue with investor groups. Strong focus on sustainability among investors has influenced REC to improve its sustainability reporting and the transparency of its business. REC will continue to develop its reporting and disclosure, which will be used as a basis for measuring and driving continual improvements in sustainability performance.

## Community engagement

The REC plants are located in an industrial area on the outskirts of Singapore with little direct impact on local communities. Hence, REC's community engagement take a broader perspective and is strongly connected to our vision – where we want every person to benefit from electricity directly from the sun. In 2013, REC made three donations of solar panels. We contributed 64 REC Peak Energy Series solar panels to 3 schools in Thailand. The schools, which were located in Bangkok, Pattaya and Chiang Rai, were better able to meet their energy needs with the additional energy provided by the solar panels. The donation also presented 900 children with an opportunity to learn more about solar energy as a

form of clean renewable energy. In 2013, REC also provided monetary donations to educational institutions and a children's home.

In addition, REC contributed a mobile power plant to Batayan Island in the Philippines in aid of the Typhoon Haiyan. The most deadly typhoon in the Philippines on record, Typhoon Haiyan has caused the death of at least 6,000 people in the country. REC's mobile power plant, which is powered by 64 REC Peak Energy Series solar panels and fitted with telecommunications equipment and medical supplies provided by partner company Temasys Communications, helped residents in the community meet minor medical needs while allowing them to radio for help in urgent and serious emergencies.

REC is looking for further social projects that can be implemented together with partners and bringing to life REC's ambitious vision.

REC does not donate to political parties, politicians or political institutions – our only political engagement is participating in dialogue to improve framework conditions for the solar industry.

#### Memberships

REC is a member of a number of industry trade associations and organizations in its key markets. REC has been a member of PV Cycle since 2008. PV Cycle is a non-profit association of solar manufacturers, working to establish operational collection and recycling solutions for end-of-life solar panels. REC has been represented on the Board since 2010.

REC is also active in several of the working groups of the European Photovoltaic Industry Association (EPIA), e.g. the Policy Working Group. Through our membership in EPIA, we contribute to the development of predictable, sustainable and solid frameworks for the deployment of solar energy.

An overview of all the trade associations and industry bodies of which REC is a member can be found on the REC website in the Sustainability section.

## PRODUCT RESPONSIBILITY

Product stewardship is ensured throughout the whole product lifecycle; from R&D, design, sourcing, manufacturing, distribution, installation, maintenance and decommissioning of the panels through to their disposal and recycling.

The process of further product development – such as higher quality wafers, more efficient solar cells or solar panels with an even higher quality – is a continuous process at REC. While commercial considerations are critical for the technological innovations, additional factors like environmental and health

and safety policies play an increasingly important role in product improvement. Market development pushes REC to provide highly efficient products at a low cost and at the same time remain a responsible corporate citizen. Furthermore, REC's product responsibility extends beyond its own production as suppliers must also demonstrate a commitment to sustainability.

## Material and product safety

REC has adopted the principle of product stewardship to reduce adverse health and environmental impacts from our products. Product stewardship seeks to ensure that the entire lifecycle of a solar panel - from its conception, through to disposal and recycling - complies with relevant legislative regulations. The manufacturing value chain at REC produces silicon wafers, which are used as the base component in producing our solar cells, which are in turn made into our solar panels as the customer-ready end product. REC wafers, cells and panels are assessed for health and safety impacts in all relevant life cycle stages, as indicated in Table 4 below.

Table 4: Life cycle stages where health and safety impacts of the products are assessed for improvement

Stage	Wafer	Cells	Modules
Development of product concept	X	Х	Х
Research & development	X	X	X
Certification	X	X	X
Manufacturing and production	X	X	X
Marketing and promotion			X
Storage distribution and supply			X
Product use and service			X
Disposal, reuse or recycling	X	X	X

REC provides product datasheets as well as installation instructions and cleaning guidelines for solar panels to inform and ensure continued performance and product safety for customers. The documents are available in a variety of languages on the Document Download Center of the REC website.

## **Product certifications**

REC's solar panels are designed to meet the highest quality standards and provide stable output over the lifetime of the product. REC Peak Energy Series solar panels are certified to industry standards according to UL 1703, IEC 61215 and IEC 61730 as well as being CE certified. Additional certifications include IEC 62716 (Ammonia Corrosion Resistance), IEC 61701 (Salt Mist Corrosion Resistance – Severity Levels 1 and 6) and the Blowing Sand test according to IEC 60068-2-68.

REC's solar panels from current production are compliant with one of the most stringent PID (potential-induced degradation) test protocols. This test protocol is developed by NREL (National Renewable Energy Laboratory, USA), and it is considered to be the most relevant PID test protocol based on correlations to outdoor performance. It is expected that this test protocol will soon be adopted by IEC as the certification standard for PID resistance.

In addition to the external certification process, REC's internal qualification requirements for components and products exceed the necessary pass levels of certification standards, and all products are in compliance with relevant prevailing legislative regulations such as REACH, RoHS, and the WEEE Directives. Throughout 2013, REC was a prominent member of the independent, Europe-wide recycling scheme PV Cycle (read more in the Recycling of solar panels section below).

## Recycling of solar panels

REC is committed to sustainable waste management. During recent times, REC has been an active member of PV Cycle, the European association for recycling end-of-life solar panels. In July 2012, a revised EU Directive on Waste from Electrical and Electronic Equipment (WEEE) was adopted. It outlines that the collection of end-of-life solar panels is no longer voluntary, but will become a legal requirement, and EU member states are obliged to amend national legislation on waste by February 2014. During the transition period in 2013, REC continued to support the voluntary collection of broken solar panels through PV Cycle.

With a minimum lifetime of 25 years for REC solar panels, and the solar industry still somewhat in its infancy, only very few solar panels require recycling today. REC nevertheless supports the inclusion into the EU Directive because this will create a level playing-field among solar manufacturers and ensure that this topic is well addressed in the mid- to long-term perspective when the need for recycling will increase significantly.

# GRI INDEX

Reported fully
Reported partly
N.A. Not applicable
n.r. Not reported

		Page	Comments	Status
	Strategy and analysis			
1.1	CEO statement about the relevance of sustainability to the organisation and its strategy	5		•
	0 : "   G			
2.1	Organizational profile			
2.1	Name of the organization	2		
2.2	Primary brands, products, and/or services	2		
2.3	Operational structure of the organization	2	·· <b>··</b> ······	
2.4	Location of organization's headquarters	2		
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	2		•
2.6	Nature of ownership and legal form	2		•
2.7	Markets served	2		•
2.8	Scale of the reporting organization	2		•
2.9	Significant changes during the reporting period regarding size, structure, or ownership	9		•
2.10	Awards received in the reporting period	In this index	None	•
•••••	Report parameters	•		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided		Calendar year (1.1.2013-31.12.2013)	•
3.2	Date of most recent previous report (if any)		2012	•
3.3	Reporting cycle (annual, biennial, etc.)	•••••	Annually	
3.4	Contact point for questions regarding the report or its contents	•••••	Corporate Communications	•
3.5	Process for defining report content		Content has been defined by using GRI as guidance, benchmarking and through stakeholder relations	•
3.6	Boundary of the report	•	This GRI report comprises fully-owned REC companies	•
3.7	State any specific limitations on the scope or boundary of the report	6		•
3.8	Basis for reporting on joint ventures, subsidiaries, etc.	6	Fully-owned REC companies are included	•
3.9	Data measurement techniques and the bases of calculations	•••••		n.r.
3.10	Explanation of the effect of any re-statements of information provided in earlier reports	6		•
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report	6		•
3.12	Table identifying the location of the Standard Disclosures in the report	6-19	This table	•
3.13	Policy and current practice with regard to seeking external assurance for the report	6		•

Governance, commitments and engagement			
Governance structure of the organization	8		•
Indicate whether the Chair of the highest governance body is also an executive officer	•••••	The Chairman is not an executive officer in REC	•
The number and gender of members of the highest governance body that are independent and/or non-executive members	8		•
Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	8		•
List of stakeholder groups engaged by the organization	13-14		•
Basis for identification and selection of stakeholders with whom to engage	13		•
Economic performance indicators			
Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments	9		•
Environmental performance indicators			
Materials used by weight or volume	13		•
Percentage of materials used that are recycled input materials	13		0
Direct energy consumption by primary energy source	11-12		•
Indirect energy consumption by primary source	11-12		•
Energy saved due to conservation and efficiency improvements	11-12		•
Initiatives to provide energy-efficient or renewable energy based products and services	11		•
Initiatives to reduce indirect energy consumption and reductions achieved	11-12		•
Total water withdrawal by source	11-12		•
Water sources significantly affected by withdrawal of water	12		•
Total direct and indirect greenhouse gas emissions by weight	11-12		•
Initiatives to reduce greenhouse gas emissions and reductions achieved	•••••		n.r.
Emissions of ozone-depleting substances by weight	12		•
NOx, SOx, and other significant air emissions by type and weight	12		•
Total water discharge by quality and destination	12		•
Total weight of waste by type and disposal method	11-13		•
Total number and volume of significant spills	•••••	No significant spills	•
	The number and gender of members of the highest governance body that are independent and/or non-executive members  Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body List of stakeholder groups engaged by the organization Basis for identification and selection of stakeholders with whom to engage  Economic performance indicators  Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments  Environmental performance indicators  Materials used by weight or volume  Percentage of materials used that are recycled input materials  Direct energy consumption by primary energy source Indirect energy consumption by primary source Energy saved due to conservation and efficiency improvements  Initiatives to provide energy-efficient or renewable energy based products and services Initiatives to reduce indirect energy consumption and reductions achieved  Total water withdrawal by source  Water sources significantly affected by withdrawal of water Total direct and indirect greenhouse gas emissions by weight Initiatives to reduce greenhouse gas emissions and reductions achieved  Emissions of ozone-depleting substances by weight  NOx, SOx, and other significant air emissions by type and weight  Total water discharge by quality and destination  Total weight of waste by type and disposal method	The number and gender of members of the highest governance body that are independent and/or non-executive members  Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body  List of stakeholder groups engaged by the organization 13-14  Basis for identification and selection of stakeholders with whom to engage 13  Economic performance indicators  Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments  Environmental performance indicators  Materials used by weight or volume 13  Percentage of materials used that are recycled input materials  Direct energy consumption by primary energy source 11-12  Indirect energy consumption by primary source 11-12  Energy saved due to conservation and efficiency improvements  Initiatives to provide energy-efficient or renewable energy based products and services  Initiatives to reduce indirect energy consumption and reductions achieved 11-12  Water sources significantly affected by withdrawal of water 12  Total water withdrawal by source 11-12  Initiatives to reduce greenhouse gas emissions by weight 11-12  Initiatives to reduce greenhouse gas emissions and reductions achieved  Emissions of ozone-depleting substances by weight 12  NOx, SOx, and other significant air emissions by type and weight  Total water discharge by quality and destination 12  Total weight of waste by type and disposal method 11-13	also an executive ornicer The number and gender of members of the highest governance body that are independent and/or non-executive members Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body List of stakeholder groups engaged by the organization 13-14  Basis for identification and selection of stakeholders with whom to engage  Economic performance indicators  Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments  Environmental performance indicators  Materials used by weight or volume 13  Percentage of materials used that are recycled input materials  Direct energy consumption by primary energy source 11-12  Indirect energy consumption by primary energy source 11-12  Energy saved due to conservation and efficiency improvements  Initiatives to provide energy-efficient or renewable energy based products and services  Initiatives to reduce indirect energy consumption and reductions achieved  Total water withdrawal by source 11-12  Initiatives to reduce indirect energy consumption and reductions achieved 11-12  Initiatives to reduce greenhouse gas emissions by weight 11-12  Initiatives to reduce greenhouse gas emissions by weight 12  Nox, SOx, and other significant air emissions by type and weight 10-10 weight of waste by type and disposal method 11-13

Status

		rage	Confinents	
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous	11-13		•
EN28	Monetary value of significant fines and total number of non- monetary sanctions for non-compliance with environmental laws and regulations	8 and 13		•
	Labour practices and decent work			
LA1	Total workforce by employment type, employment contract, and region, broken down by gender	9		•
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	10		0
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender	10-11		0
LA12	Percentage of employees receiving regular performance and career development reviews, by gender	10		•
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	8	Read more about corporate governance on our web page: http://www.recgroup.com/en/aboutREC/	•
	Human rights			
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken	13		•
HR4	Total number of incidents of discrimination and corrective actions taken	8	•	•
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights	13		•
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	13	No violations or risks were reported through whistleblowing channel or human rights screening of significant suppliers	•
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	13	No violations or risks were reported through whistleblowing channel or human rights screening of significant suppliers	•
•••••		••••••		••••••
S02	Society impact  Percentage and total number of business units analyzed for risks related to corruption	8		•
S03	Percentage of employees trained in organization's anti- corruption policies and procedures	8	<b></b>	•
S04	Actions taken in response to incidents of corruption	 8	•••••	•
S05	Public policy positions and participation in public policy development and lobbying	14		•
S06	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country	14		•
S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	8		•

		Page	Comments	Status
508	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	8		•
	Product responsibility			
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	14-15		•
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes	8		•
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	14		0
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	8		•



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