

# Consumers leading the energy transition



## Table of contents

1	<b>INTRODUCTION</b>	2
2	OUR MISSION	4
3	MARKET DEVELOPMENTS	5
4	FINANCIAL DEVELOPMENTS	12
5	ORGANIZATION	15

# 1 Introduction

## Consumers leading the energy transition

Energy attribute certificate markets are expanding around the world, and for good reason: these markets are being recognized for their important role in providing transparency, credibility and consumer choice. Whereas the Guarantee of Origin market in Europe matured only a few years ago, today this market is well developed and growing in terms of its importance and volumes. In North America the REC system continues to be a leading driver of growth in renewable energy production and around the world the International REC Standard is developing rapidly, offering national authorities and local stakeholders a reliable standard for procuring renewable electricity.

This growth is driven by various developments, the most visible lately being the growth of corporate sourcing of renewable electricity. This is an endeavour by major companies to take responsibility for their

impact on global greenhouse gas emissions. These companies recognize the importance of reliable market-based instruments and standardization. The work of RECS International, along with its members and partners, provides critical guidance and ensures that consumers are able to make informed decisions about their electricity purchases.

Building new renewable generation capacity is increasingly being led by demand and less by national support schemes. While it is expected that this trend will continue in the future, it is crucial to align policy developments with consumer demand. In Europe developments related to the new Renewable Energy Directive are influencing the policy landscape for renewable energy market developments, but this isn't happening in a bubble. Around the world, in almost every country, similar legislative and market-based initiatives are

## Table of contents

1	<b>INTRODUCTION</b>	2
2	OUR MISSION	4
3	MARKET DEVELOPMENTS	5
4	FINANCIAL DEVELOPMENTS	12
5	ORGANIZATION	15

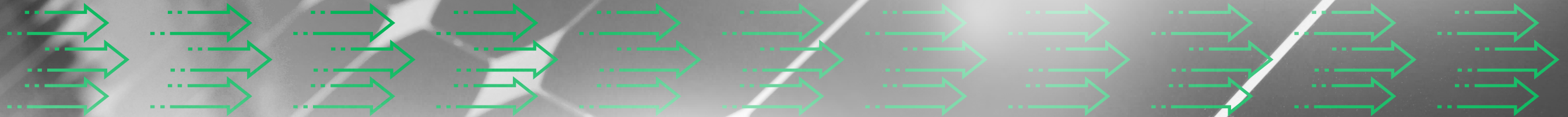
## 1 Introduction

### Consumers leading the energy transition

taking place. RECS International continues to be an important source of information and support for both global and local actors working in this sector. We remain focused, now more than ever, on creating effective and reliable markets for trading renewable energy. This work is only possible because of the efforts and support of our members as well as the work of our secretariat.

#### **Thomas Eccard**

Chairman, RECS International





## Table of contents

1	INTRODUCTION	2
2	<b>OUR MISSION</b>	4
3	MARKET DEVELOPMENTS	5
4	FINANCIAL DEVELOPMENTS	12
5	ORGANIZATION	15

# 2 Our mission

RECS International is a non-profit members' organization with the mission to create transparent and reliable renewable energy markets, facilitated by commonly accepted energy attribute tracking systems.

Members of RECS International represent the whole chain of the electricity market – from producers to consumers – who all endorse the principles of cost-efficient, consumer-driven growth in renewable electricity. At RECS International we believe that the future of the electricity market will be driven by

consumers and that energy attribute certificates (EACs), suitable policies and best practices must be in place to enable bottom-up growth in that market.



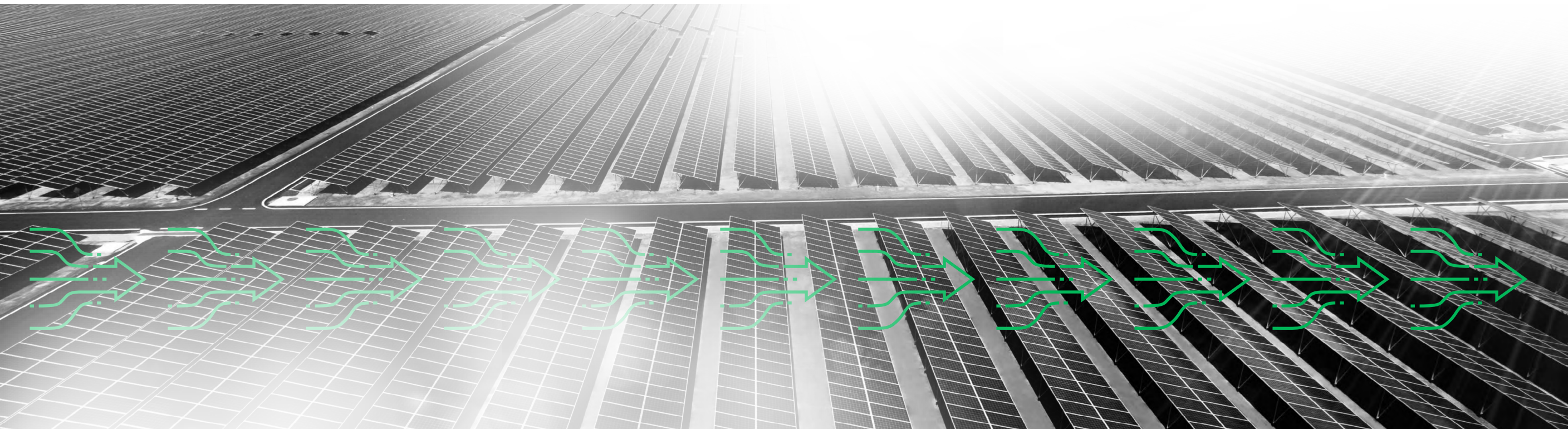
## Table of contents

1	INTRODUCTION	2
2	MISSION	4
3	<b>MARKET DEVELOPMENTS</b>	5
→	EUROPE	6
→	USA	8
→	INTERNATIONAL REC STANDARD (I-REC STANDARD)	10
4	FINANCIAL DEVELOPMENTS	12
5	ORGANIZATION	15

# 3 Market developments

## Overview

- > Europe
- > USA
- > International REC Standard (I-REC Standard)





## Table of contents

1	INTRODUCTION	2
2	MISSION	4
3	<b>MARKET DEVELOPMENTS</b>	5
→	EUROPE	6
→	USA	8
→	INTERNATIONAL REC STANDARD (I-REC STANDARD)	10
4	FINANCIAL DEVELOPMENTS	12
5	ORGANIZATION	15

## 3 Market developments

### Europe

Guarantee of Origin (GO) markets in Europe have grown consistently over the last decade. EU Member States, as well as some non-EU states, mandate that adequate disclosure regulation should be in place at the national level and that the GO (or a similar energy attribute certificate) should be used to reliably deliver renewable energy attributes. The figure below shows developments from 2009 to 2017. The vertical bars display RES production, part of which has been certified (Total issued GOs), some of which has not been certified due to production being coupled to a support scheme which does not allow the GOs to reach the market (Supported-not certified) and some of which has been available for certification but has not been certified. The line shows cancellation volumes of GOs (certified RES consumption).

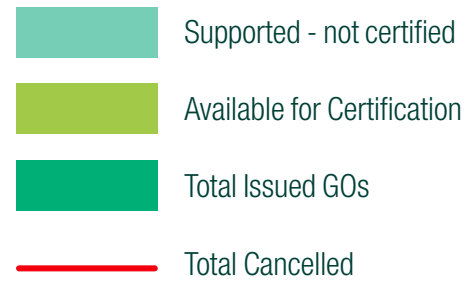
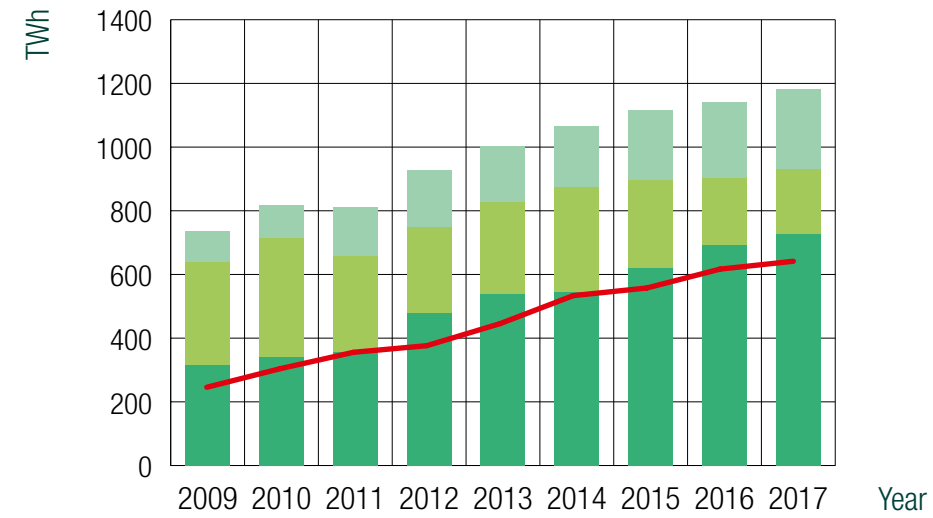
The issuance of Guarantees of Origin in 2017 has increased by 34 TWh compared to 2016. This represents growth of 5% (compared to 12% growth in 2016), but the share of RES tracked by the GO compared to total RES produced remains 54%. The graph shows that demand for renewable electricity (the red line) is increasing, with an average growth rate of 9.6% over the last five years. Total production is also increasing, in part due to state subsidies (“supported-not certified”). Supported-not certified volumes are created primarily in Germany and France (21% of the total produced RES in both 2016 and 2017), where GOs are not issued for renewable electricity which received support. The gap between total supply and demand is getting smaller as the volume of electricity available for certification is being reduced.

## Table of contents

1	INTRODUCTION	2
2	MISSION	4
3	<b>MARKET DEVELOPMENTS</b>	5
→	EUROPE	6
→	USA	8
→	INTERNATIONAL REC STANDARD (I-REC STANDARD)	10
4	FINANCIAL DEVELOPMENTS	12
5	ORGANIZATION	15

## 3 Market developments / Europe

### RES consumption Europe\*



\*Source: GO Monitoring RECS International



## Table of contents

1	INTRODUCTION	2
2	MISSION	4
3	<b>MARKET DEVELOPMENTS</b>	5
→	EUROPE	6
→	USA	8
→	INTERNATIONAL REC STANDARD (I-REC STANDARD)	10
4	FINANCIAL DEVELOPMENTS	12
5	ORGANIZATION	15

## 3 Market developments

### The US REC market

As in Europe, in the US a REC is issued for every MWh of electricity produced. The US has both a compliance REC market and a voluntary REC market. Most US states have adopted some form of Renewable Portfolio Standard (RPS), which forms the basis for the compliance market. An RPS requires electricity utilities and other retail electricity providers to deliver a specified percentage or amount of electricity with eligible renewable resources. Although the Environmental Protection Agency (EPA) encourages the use of tracking systems to regulate generation and retirement, not all RECs are required to be transacted through an attribute tracking system, and these are therefore not included in the figure below.

The US market for RECs continues to grow. The volumes of documented renewable

energy are increasing, with the share of voluntary renewables in the total volume of generated electricity increasing from 26% in 2015 to 28% in 2016. Voluntary demand is increasing to the extent that, for the first time, it exceeds the volumes of existing renewables under the compliance schemes. Newly installed compliance volumes continue to account for most REC usage (42%), showing that RPS-driven markets continue to drive the growth of renewables on the grid. The section 'other renewables' refers to situations where regulated entities procure RE over and above their RPS requirements. This also captures distributed generation where no REC transaction has occurred, such as situations where rooftop PV owners retain their own RECs.



## Table of contents

1	INTRODUCTION	2
2	MISSION	4
3	<b>MARKET DEVELOPMENTS</b>	5
→	EUROPE	6
→	USA	8
→	INTERNATIONAL REC STANDARD (I-REC STANDARD)	10
4	FINANCIAL DEVELOPMENTS	12
5	ORGANIZATION	15

## 3 Market developments / USA

### RES consumption USA\*



\*Source: NREL

## Table of contents

1	INTRODUCTION	2
2	MISSION	4
3	<b>MARKET DEVELOPMENTS</b>	5
→	EUROPE	6
→	USA	8
→	INTERNATIONAL REC STANDARD (I-REC STANDARD)	10
4	FINANCIAL DEVELOPMENTS	12
5	ORGANIZATION	15

## 3 Market developments

### International REC Standard (I-REC Standard)

The International REC Standard (I-REC Standard) is the best known and most frequently used energy attribute certificate market outside of the US and Europe. The I-REC market has grown rapidly since its inception in late 2014. To date, 22 countries around the world have independent issuers, which are authorized to work in compliance with the I-REC Standard. The number of participant account holders since 2014 has

more than doubled to 38. The number of registered devices has also doubled to 117. In 2017 growth in the issuance of I-RECs was almost 30% compared to 2016 and it is expected that in 2018 issuance volumes will continue to grow, as more countries become active adopters of the International REC Standard and consumer demand for renewable attributes continues to grow internationally.

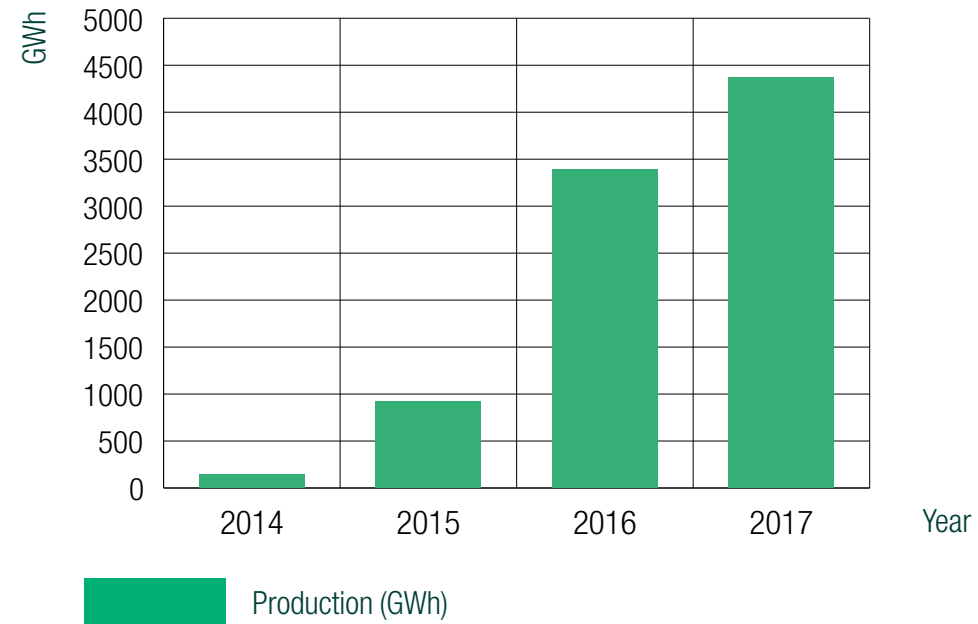


## Table of contents

1	INTRODUCTION	2
2	MISSION	4
3	<b>MARKET DEVELOPMENTS</b>	5
→	EUROPE	6
→	USA	8
→	INTERNATIONAL REC STANDARD (I-REC STANDARD)	10
4	FINANCIAL DEVELOPMENTS	12
5	ORGANIZATION	15

## 3 Market developments / I-REC Standard

### RES issuance on I-REC Standard\*



## Table of contents

1	INTRODUCTION	2
2	OUR MISSION	4
3	MARKET DEVELOPMENTS	5
4	<b>FINANCIAL DEVELOPMENTS</b>	12
→	BALANCE SHEET	13
→	PROFIT AND LOSS STATEMENT	14
5	ORGANIZATION	15

# 4 Financial developments

## Overview

- > Balance sheet
- > Profit and Loss statement





## Table of contents

1	INTRODUCTION	2
2	OUR MISSION	4
3	MARKET DEVELOPMENTS	5
4	<b>FINANCIAL DEVELOPMENTS</b>	12
→	BALANCE SHEET	13
→	PROFIT AND LOSS STATEMENT	14
5	ORGANIZATION	15

## 4 Financial developments\*

### Balance sheet

#### Assets

	2017	2016	In Euros
Assets	5,183	7,575	
Accounts receivable	7,935	2,784	
Cash	178,126	185,945	
Other receivables	112,571	47,526	
<b>Total</b>	<b>303,815</b>	<b>243,830</b>	

#### Liabilities

	2017	2016	In Euros
Cumulative results	183,089	182,820	
Creditors	1,671	23,135	
Other creditors	119,055	37,875	
<b>Total</b>	<b>303,815</b>	<b>243,830</b>	

\* The full 2017 compilation report is available at the RECS secretariat.

## Table of contents

1	INTRODUCTION	2
2	OUR MISSION	4
3	MARKET DEVELOPMENTS	5
4	<b>FINANCIAL DEVELOPMENTS</b>	12
→	BALANCE SHEET	13
→	PROFIT AND LOSS STATEMENT	14
5	ORGANIZATION	15

## 4 Financial developments\*

### Profit and Loss statement

#### Revenue

	In Euros	
	2017	2016
Member fees	168,008	166,790
Meeting fees	245,675	198,127
<b>Total</b>	<b>413,683</b>	<b>364,917</b>

#### Expenditure

	In Euros	
	2017	2016
Internal		
Secretariat	211,722	181,723
Travel & accommodation	12,881	16,681
Financial & legal	4,420	2,330
Operational costs	4,658	1,550
Meetings	150,521	132,874
PR & communication	12,313	11,068
Special projects	16,900	14,910
Result	269	3,781
<b>Total</b>	<b>413,683</b>	<b>364,917</b>

\* The full 2017 compilation report is available at the RECS secretariat.



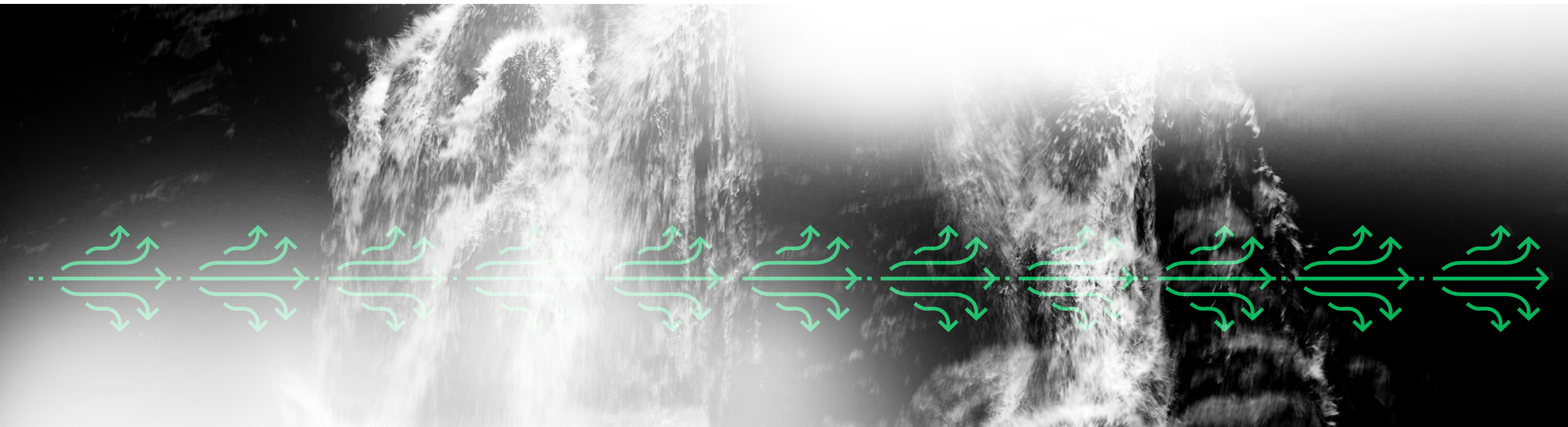
## Table of contents

1	INTRODUCTION	2
2	OUR MISSION	4
3	MARKET DEVELOPMENTS	5
4	FINANCIAL DEVELOPMENTS	12
5	<b>ORGANIZATION</b>	15
→	RECS INTERNATIONAL BOARD	16
→	RECS INTERNATIONAL MEMBERS	17

# 5 RECS International

## Overview

- > Board members
- > RECS International members



## Table of contents

1	INTRODUCTION	2
2	OUR MISSION	4
3	MARKET DEVELOPMENTS	5
4	FINANCIAL DEVELOPMENTS	12
5	<b>ORGANIZATION</b>	15
→	RECS INTERNATIONAL BOARD	16
→	RECS INTERNATIONAL MEMBERS	17

## 5 RECS International

### Board members

**Thomas Eccard**, Chairman/President  
Agder Energi  
Sweden

**Tom Lindberg**  
Ecohz  
Norway

**Louis von Moos**  
Association ECS Switzerland  
Switzerland

**Marie-Christine Bluett**  
South Pole Group  
the Netherlands

**Saptarshi Pal**  
Statkraft Markets  
United Kingdom

**Oliver Crouch**  
Natural Capital Partners  
United Kingdom

**Ivan Debay**  
Origo  
France



## Table of contents

1	INTRODUCTION	2
2	OUR MISSION	4
3	MARKET DEVELOPMENTS	5
4	FINANCIAL DEVELOPMENTS	12
5	<b>ORGANIZATION</b>	15
→	RECS INTERNATIONAL BOARD	16
→	RECS INTERNATIONAL MEMBERS	17

## 5 RECS International

### Members in 2017

3Degrees™



AIR PRODUCTS



ACT Amsterdam Capital Trading



agder energi



alperia

ALPIQ

AVR

aspo



ECS SCHWEIZ  
VEREIN ENERGY CERTIFICATE SYSTEM



BKK



Cleanworld  
Hunting green

CLIMEX CE

COMMERG

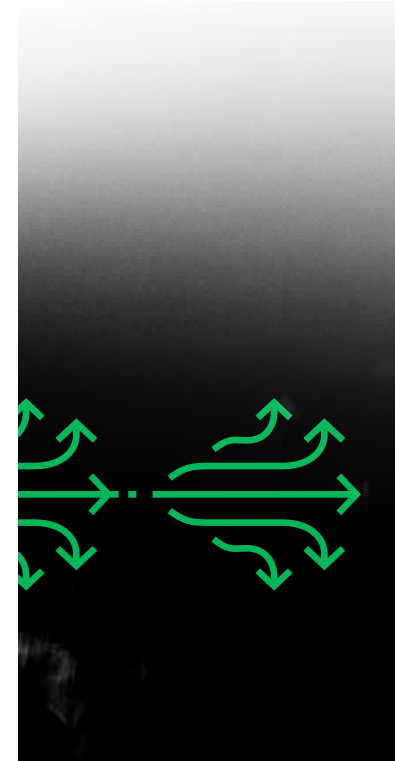
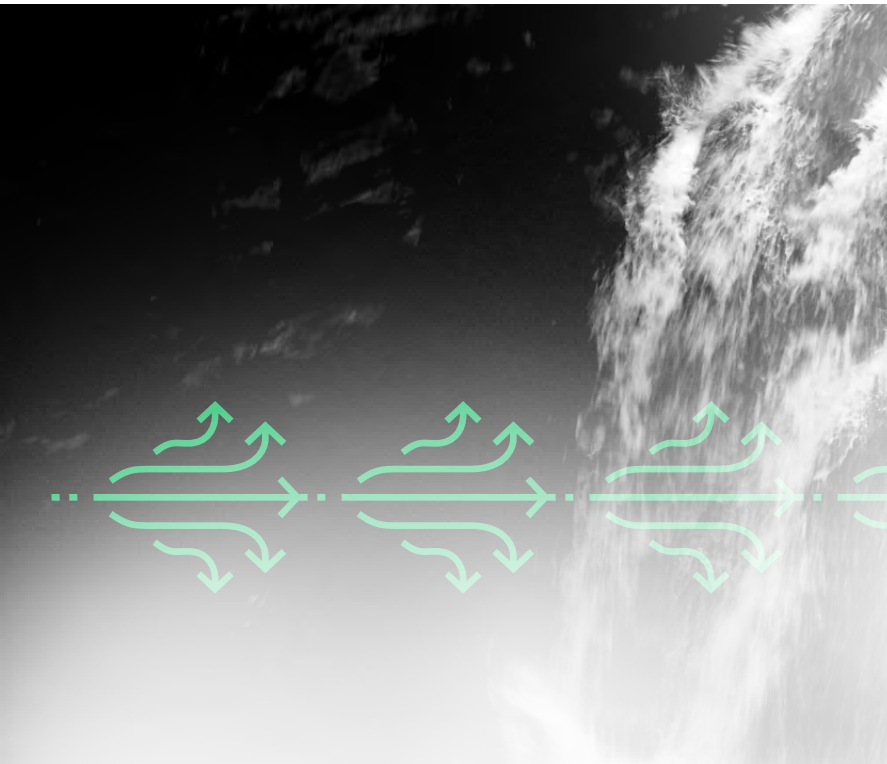


e-on

## Table of contents

1	INTRODUCTION	2
2	OUR MISSION	4
3	MARKET DEVELOPMENTS	5
4	FINANCIAL DEVELOPMENTS	12
5	<b>ORGANIZATION</b>	15
→	RECS INTERNATIONAL BOARD	16
→	RECS INTERNATIONAL MEMBERS	17

## 5 RECS International / Members

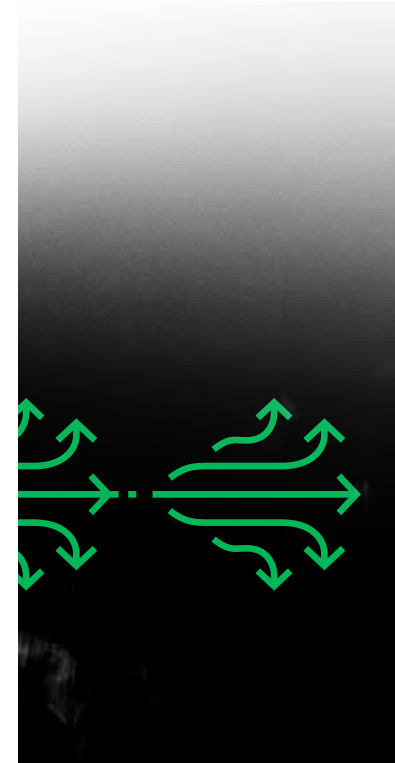
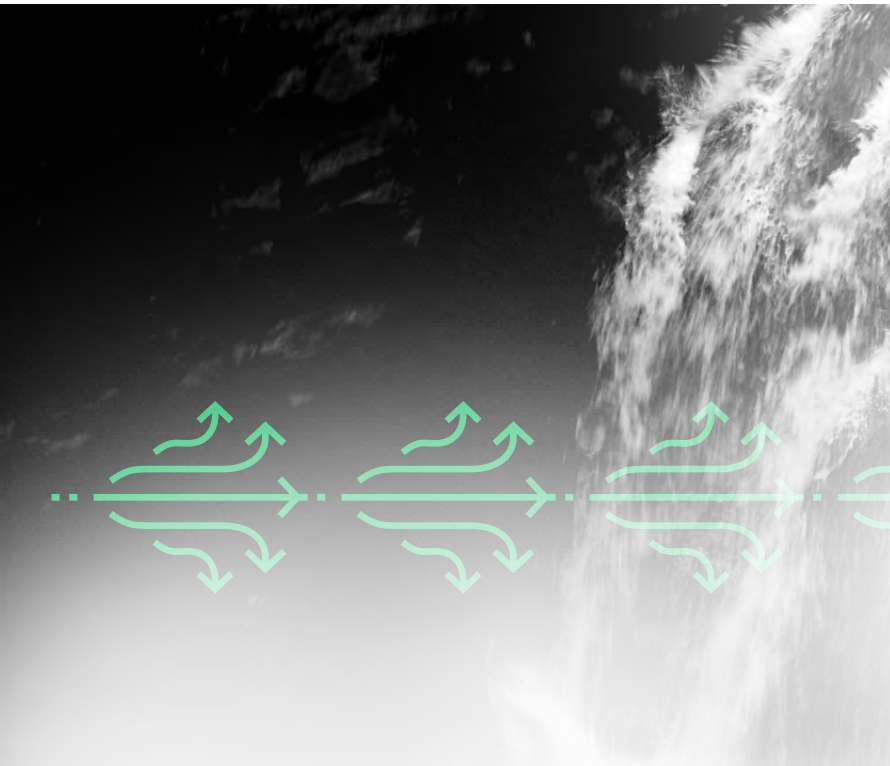




## Table of contents

1	INTRODUCTION	2
2	OUR MISSION	4
3	MARKET DEVELOPMENTS	5
4	FINANCIAL DEVELOPMENTS	12
5	<b>ORGANIZATION</b>	15
→	RECS INTERNATIONAL BOARD	16
→	RECS INTERNATIONAL MEMBERS	17

## 5 RECS International / Members



## RECS International

### Secretariat

Achter de Tolbrug 151  
5211SM 's-Hertogenbosch  
The Netherlands  
+31 (0)26 820 03 96  
secretariat@recs.org



design: