

Maintaining ambition in challenging times



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1 Introduction by Thomas Eccard, Chair of the RECS board

Maintaining ambition in challenging times

The year 2021 was a year of turbulence and uncertainty, while also offering opportunities and the potential for change. The COVID-19 pandemic continued to threaten our collective well-being and prosperity. For RECS staff this meant fewer chances to interact with each other and with our members on a personal level. For RECS as an organisation, we were once again forced to postpone our annual conference, the REC Market Meeting.

Nevertheless, we made important progress in 2021. Ten new members joined us over the year, boosting our numbers to almost 100 members. Every new member brings important experience and expertise to the organisation, which the Secretariat greatly appreciates. Also, among various information and policy papers, RECS published a much anticipated and significant update to our standard agreement for EACS-GO trading.

On the legislative and regulatory front, the European Commission published its proposals for updating the Renewable Energy Directive. At RECS we have seized this opportunity to make the case for going further by requiring all Member States and single market countries to institute full consumption disclosure. With the package due to be agreed on by the European Institutions in late 2022, RECS will advocate this position in the year to come. Another long-term regulatory project with which RECS has been heavily involved is updating the CEN standard on GOs. RECS will maximise its efforts to support the development of harmonised, efficient, and effective EAC markets.

Outside of Europe, RECS continues its close collaboration with the I-REC Standard Foundation. We support the development of EAC systems and markets in all countries as part of our efforts to harness consumer demand for renewable electricity in order to accelerate the global energy transition. Our participation in global initiatives such as EnergyTag, also creates opportunities to build new relationships around the world.

We look forward to another dynamic year with many in-person meetings and fruitful collaborations with our members and other partners.



Thomas Eccard
Chair of the RECS board
Head of Green Markets at Agder Energi

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Our mission

RECS is a non-profit foundation representing the users of energy attribute certificates. Working with our diverse group of members from around the world, we strive to provide the knowledge, motivation, and confidence needed to sell, trade, and buy renewable energy. The economic benefits of these markets can make an important contribution to an accelerated transition towards 100% renewable energy systems.

By engaging with, and bringing together, market participants, legislators, policymakers, regulators and system operators, we argue that well-informed consumers can make better energy choices and contribute significantly to tackling climate change.



Figure 1. RECS work areas

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Key work areas

Our work covers four main areas (see figure 1 above). The upper quadrants represent the work we do to maintain our connection with our members as well as the wider renewable-energy community through events, member services, communications, and coordination with other organisations.

The lower quadrants represent our role as an authority in developing renewable energy markets. Figure 2 shows this aspect of our work in more detail.

To encourage consumers to buy renewable energy, we provide guidance and information on key aspects of the development of renewable energy markets. Figure 2 sets out our vision in eight key areas where we believe we are recognised as an authority. Papers on each of these areas are available on our website (www.recs.org), with RECS members receiving priority access.

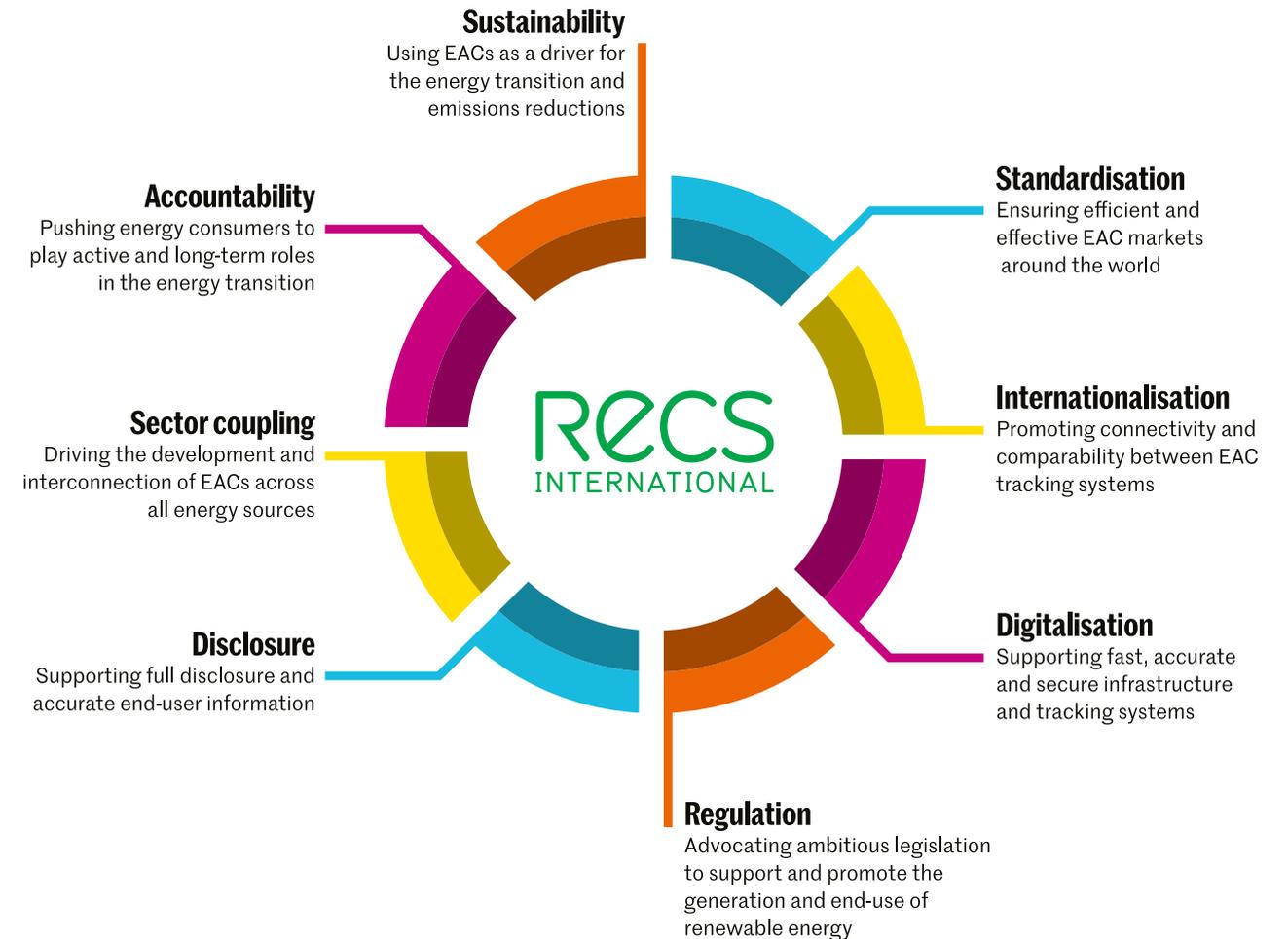


Figure 2. RECS areas of focus

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Market developments

Overview

Europe

USA

International Renewable Energy Certification



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Europe

In Europe, the Guarantee of Origin (GO) is issued to document energy attributes, mostly within the single market. Although issuance mainly relates to devices producing renewable energy, some national systems also issue GOs to non-renewable generators. The Netherlands is the latest European country to adopt a full disclosure scheme, instituting the model which RECS most supports – ‘full consumption disclosure’. This step has placed a legal requirement on energy suppliers in the Netherlands to fully disclose information about the energy they supply to their end consumers, using the GO for renewables and certificates of origin (COs) for energy from non-renewable sources.

Since 2021, the second Renewable Energy Directive (REDII) has expanded the use of the GO to energy carriers other than electricity. Details about GOs for heating and cooling, and gaseous energy sources, including hydrogen, are still under

development as part of the CEN-CENELEC 16325 standard.

To harmonise the rules among national GO registries, the Association of Issuing Bodies (AIB) maintains the EECS-GO standard. The number of issued, cancelled and expired “EECS-GOs” is shown in the graph below (in TWh). Data is based on the date of transaction of GOs for biomass, fossil fuels, nuclear energy and renewables.

Issuance of GOs has continued to grow at a steady pace, with average annual growth of 15% between 2011 and 2021. The share of expired GOs as a percentage of the total issued in the same year has decreased from 17% in 2011 to 8% in 2021.

Since 2019, the AIB has shown cancellation figures for own domain, ex-domain and total cancellation in their EECS data. Cancellations within the EECS countries form the bulk of the cancelled GOs (91% on average).

The AIB provides detailed statistics for EECS-GOs on their website, showing data from all AIB members and a wide range of energy sources.

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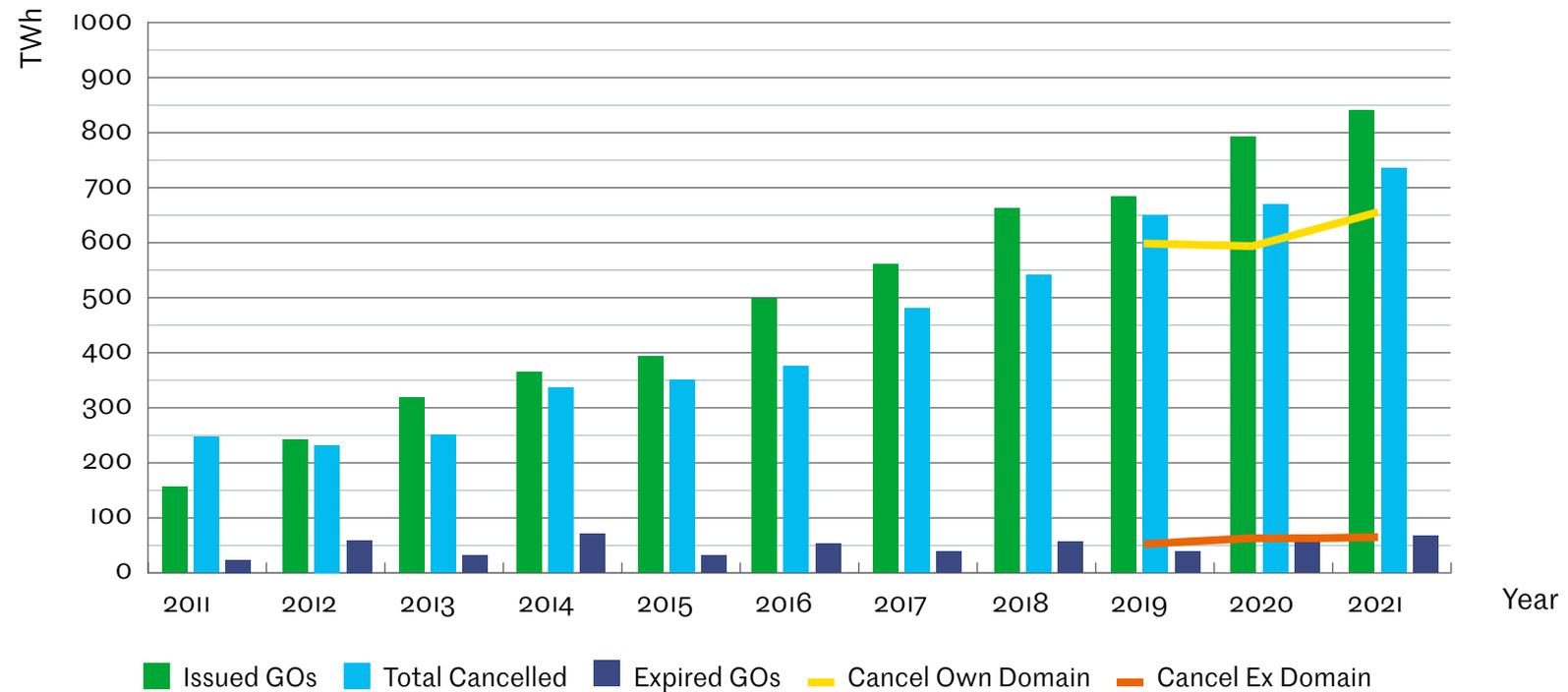
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Europe

Figure 3. EECS-GO issuance and cancellation *



*Source: The Association of Issuing Bodies

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USA

The renewable energy market in the US is comprised of both voluntary and compliance purchases.

Compliance markets are driven by policy decisions, such as state renewable portfolio standards (RPSs). Renewable energy certificates (RECs) are used to demonstrate compliance with mandated renewable energy requirements. RPS policies and targets in compliance markets differ between states. A 2021 report by Berkely Lab shows that there are RPS policies in 30 states (+ DC) and that these apply to 58% of total US retail electricity sales. The report also shows that RPS policies have been one of the key drivers of RE generation growth.

Voluntary markets (“green power markets”) are driven by consumer demand for specific types of renewable energy. Voluntary markets allow a consumer to procure renewable electricity at levels above and beyond those required by policy. In voluntary

markets, RECs are also used to underpin the purchase of renewable energy.

Figure 4 shows REC procurement in compliance markets versus procurement in voluntary markets. Data for 2021 is not yet available at the time of publication of this Annual Report. REC sales continue to increase each year and between 2010 and 2020 the average annual increase was 11%. The share of voluntary REC sales has steadily increased from 13% in 2010 to 21% in 2020, while the share of compliance RECs has stayed almost the same over this 10-year period (40.9% in 2010 to 39.3% in 2020).

Not shown in the data below is the fact that there has been a continuing shift to direct procurement forms such as PPAs and utility green tariffs in the US market. In 2020, PPAs accounted for about 47% of sales, whereas in 2010 this was around 1%. Another point worth mentioning is the fact that REC prices in the

US have been steadily increasing, which may be due to demand growing more quickly than supply.

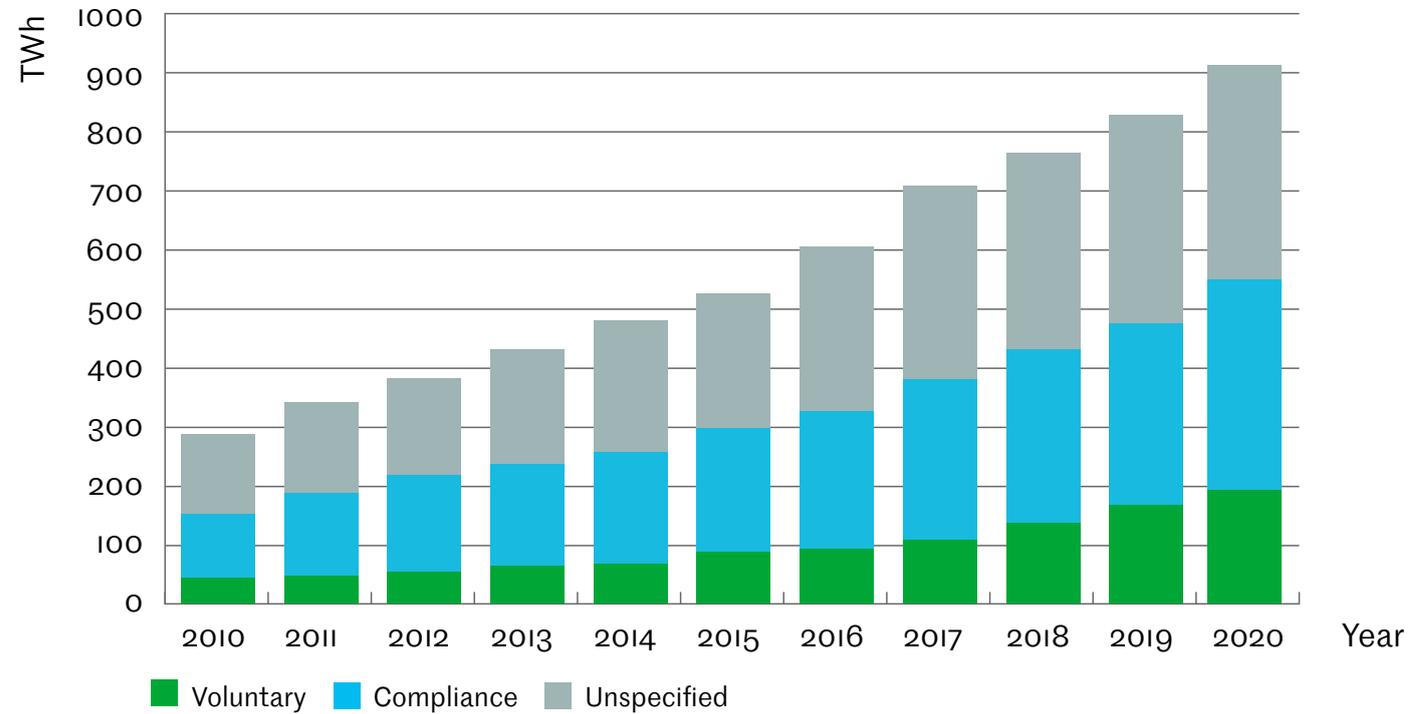
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USA

Figure 4. US REC sales*



*Source: J. Heeter, E. O'Shaughnessy, and R. Burd. 2021. Status and Trends in the Voluntary Market. Golden, CO: NREL.

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International Renewable Energy Certification

The International REC Standard Foundation's mission is to standardise attribute tracking schemes around the world by accrediting organisations to facilitate these associated markets in line with the Foundation's rules. Like the expansion of GOs in Europe for non-electricity energy carriers, the Foundation is working with various partners on developing attribute tracking schemes for other energy carriers to function in parallel with the I-RECs for electricity (I-REC(E)).

At the end of 2021, I-RECs(E) were available in over 45 countries. Due to the ongoing good collaboration with national governments and associated national stakeholders in these countries, I-RECs(E) are now issued by about 20 Issuers that are all responsible for one or more national markets. Like EAC systems in the European and US markets, organisations taking on the role of Issuer range from national authorities

and governmental appointed organisations to non-profit and for-profit organisations.

The issuance and redemption of I-RECs(E) continued to rise in 2021 to over 71 TWh and 48 TWh, respectively. This is a 124% growth for issuance and a 104% growth for redemptions compared to 2020 levels. As in all REC markets around the world, the number of redemptions is always behind the number of issued certificates due to the time it takes to trade and find a suitable buyer. Very few I-RECs(E) remain unused.

This growth can mainly be attributed to national growth figures, rather than growth in issuing I-REC(E) countries. For example, issuance in China grew from nearly 13 million certificates in 2020 to over 25 million in 2021, in Brazil issuance grew from 4 million to over 9 million and the market in Turkey is now an impressive nine times larger (from under 1 million to over 8 million certificates). Growth

in the three largest I-REC(E) markets in 2021 was accompanied by growth in many other I-REC countries such as the UAE (from 120k to over 3 million certificates issued), Peru (from 115k to 730k certificates), Thailand (from 1 million to 2 million certificates), and Nigeria (from 40k to 186k certificates). At the time of writing this report (July 2022), the number of I-RECs issued in 2022 was already higher than the number of issued certificates in the whole of 2021.

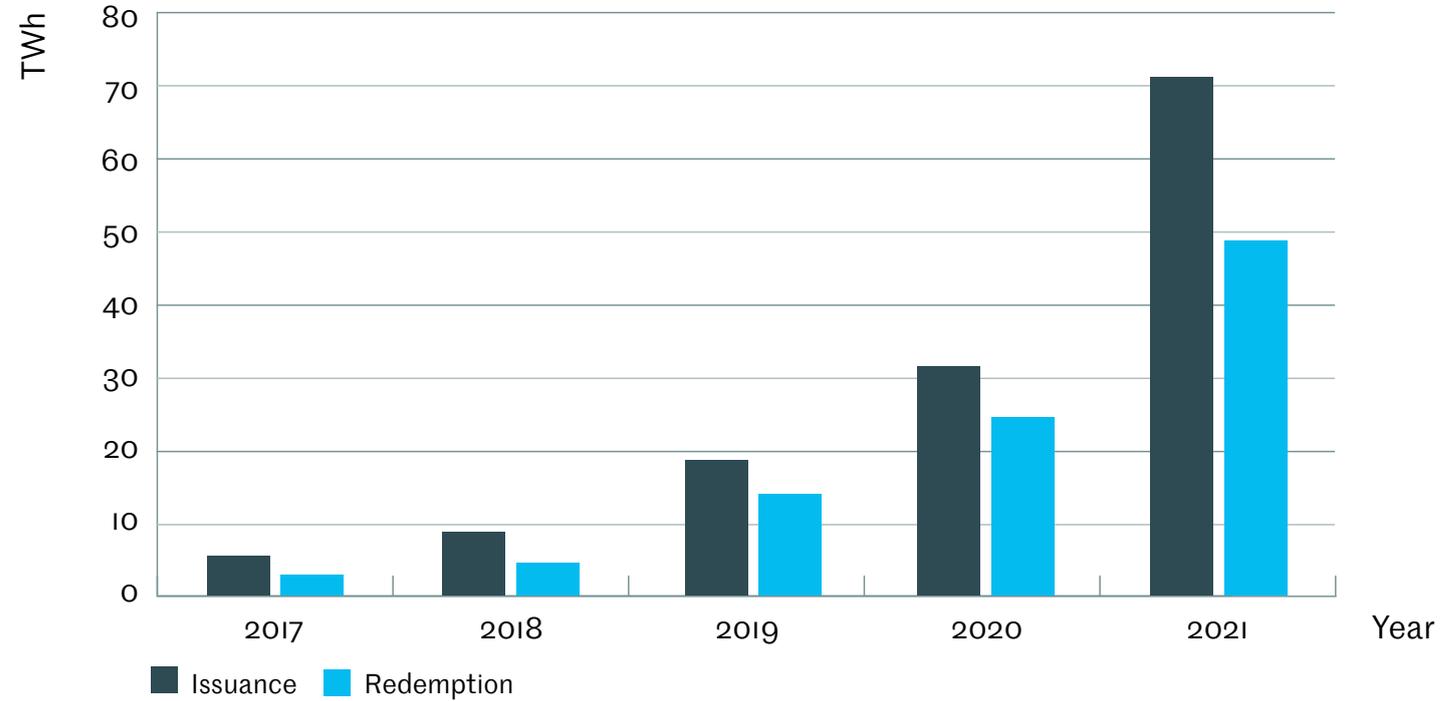
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International Renewable Energy Certification

Figure 5. Transactional data from issuance and redemptions from all I-REC(E) markets (TWh)*



*Source: International REC Standard Foundation

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Financial developments

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Profit and Loss statement



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Balance sheet

Assets

In Euros

	2021	2020
Debtors	1,855	0
Accounts receivable	112,836	24,516
Cash	404,202	214,498
Other receivables	16,619	20,617
Total	535,512	259,631

Liabilities

In Euros

	2021	2020
Cumulative results	57,106	188,556
Creditors	61,685	0
Other creditors	478,406	71,075
Total	597,197	259,631

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Profit and Loss statement

Revenue

In Euros

	2021	2020
Member fees	200,377	183,858
Meeting fees	16,000	126,867
Total	216,377	310,725

Expenditure

In Euros

	2021	2020
Internal		
<i>Secretariat</i>	266,000	266,000
<i>Travel & accommodation</i>	571	637
<i>Financial & legal</i>	6,348	6,547
<i>Operational costs</i>	8,195	7,027
Meetings	46,978	61,476
PR & communication	19,735	13,425
Special projects	0	500
Result	-131,450	-44,887
Total	347,827	355,612

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Organisation

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RECS secretariat

RECS board members

RECS members



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6 Organisation

Secretariat

Adam White
Secretary-General

Jared Braslawsky
Operational Manager

Mirte van Geenen
Project manager

Ineke ter Steeg
Administrative support

Jos Tuinenburg
Senior Analyst

Board members

Thomas Eccard (Chair)
Agder Energi, Germany

Marie-Christine Bluett
IncubEx, United Kingdom

Oliver Crouch
Climate Asset Management,
United Kingdom

Ivan Debay
Origo, France

Eva Klesse
KlimaInvest Green Concepts, Germany

Tom Lindberg
Ecohz, Norway

Louis von Moos
Association ECS, Switzerland

Saptarshi Pal
Statkraft Markets,
United Kingdom

Dania Piccioli
Nvalue, Switzerland

Filip Strohwasser
ČEZ Group, Czech Republic

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RECS Members



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Members in 2021



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Members in 2021



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RECS

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