

Evident.



Registry : Designing for the Future



History

- One of the first REC registries in 1999, now the **world's widest used**
- We understand the “**why**” as well as the “what”
- In-house architects, designers, and developers work alongside Issuers and directly support Registrants and Participants
- The most experienced registry design team in the world



What is the Registry?

- The Registry is ***not*** a trading place
- Impartial record of truth
- Independent of traders
- Central to effective and transparent markets
- Accredited by the I-REC foundation



Registration.

Registrants upload and submit evidence via the Registry for review by Issuers

Every piece of evidence is checked and must be:

- Uniquely attributable to the facility
- Verified by an approved independent party
- Stored with the Evident Registry

Issuers will not approve until satisfied with data

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The screenshot displays the registration interface for the Evident Registry. It features a technical diagram of a dam's electrical system (Figure 2) on the left and a registration form on the right. The form includes fields for Device Type, Device Technology, Capacity, Commissioning Date, Registration Date, Other Labeling Scheme, Address, Country Code, Latitude, and Longitude. A map of the dam is visible in the bottom right corner of the form.



Issuing.

Registrants upload and submit evidence via the Registry for review by Issuers

Issuers deal with over 500 different forms of evidence

Every piece of evidence is checked and Issuers will not issue I-RECs until satisfied with data

Unlike power markets, I-REC data is permanent

Evident.

NOTIS PEMAKLUMAN BAYARAN / SLIP PEMBAYARAN TENAGA BOLEH BAHARI

No. Akaun: [REDACTED]

Jumlah Bayaran: RM 300,733.86

Tarikh Nota / Slip Pembayaran: 01.03.2022

Jumlah Nota / Slip Pembayaran: 202,733.86

Pelesenan (RM): 0.00

Jumlah Bayaran (RM): 300,733.86

NOTIS PEMAKLUMAN BAYARAN / SLIP PEMBAYARAN TENAGA BOLEH BAHARI TERDAKLU

Tarikh: 01.03.2022

Jumlah Bayaran (RM): RM 300,733.86

NOTIS PEMAKLUMAN BAYARAN / SLIP PEMBAYARAN TENAGA BOLEH BAHARI SEMASA

No. Nota / Slip: 00105215

Tempoh Nota / Slip Pembayaran: 01.02.2022 - 28.02.2022

Bilangan Meter: 28,305,504.99

Kod Bacaan: [REDACTED]

KETERANGAN JUMLAH PENANJIAN SEMASA

Perincian	Perincian (RM)	Kadar (%)	Jumlah (RM)
Kadar Displaced Cost (DC) >= 100% (DA)	644,107.00	0.2800	180,297.47
Kadar Displaced Cost (DC) <= 100% (DA)	644,107.00	0.2800	147,246.09
Kadar Displaced Cost (DC) 100% - 110%	-	0.2800	-
Tanah Kadar < 110% (DA)	-	-	45,888.68
Jumlah SLIP PEMBAYARAN SEMASA (RM)			300,733.86

MAKLUMAT PENYEDIA KULIAH CALAK

Temp: [REDACTED]

Alamat: [REDACTED]

No. Akaun: [REDACTED]

Tarikh FIKS: 07.02.2019

DECLARED ANNUAL AVAILABILITY (DAAR) - MRN - 2022

Jumlah Penjamin (MRN): 2022 (triga beban semasa)

Jumlah Penjamin (MRN): 2022 (triga beban semasa)

499907822019

0353/B#844+90+/3/7/34031-33

19394145519/92<8976<<0272/

61370433010127<0344<4<3<05

0353/B#844+90+/3/7/34031-33

19394145519/92<8976<<0272/

61370433010127<0344<4<3<05

0353/B#844+90+/3/7/34031-33

19394145519/92<8976<<0272/

61370433010127<0344<4<3<05

Date	Generation (kWh)	Generation (kWh)	Generation (kWh)	Total Generation (kWh)	Station Use (kWh)	Station Use (kWh)	Station Use (kWh)	TOTAL Station Use (kWh)
26-Apr-21	2,825,049.87	1,146,886.42	37,883.30	6,379,819.59	-	3,774.72	-	3,774.72
27-Apr-21	2,360,515.63	4,087,607.44	62,825.14	6,510,948.21	-	3,717.12	-	3,717.12
28-Apr-21	2,403,240.70	4,154,182.83	63,881.82	6,621,016.36	-	3,628.80	-	3,628.80
29-Apr-21	2,653,280.72	4,044,134.92	63,181.50	6,560,576.49	-	12,241.92	-	12,241.92
30-Apr-21	2,355,813.55	4,147,525.10	62,282.20	6,565,600.85	-	3,711.36	-	3,711.36
01-May-21	2,355,137.99	4,108,104.16	65,888.68	6,453,277.93	-	3,673.04	-	3,673.04
02-May-21	2,356,870.99	4,017,600.34	8,767.22	6,383,238.55	-	3,859.52	994.24	4,813.76
03-May-21	2,357,517.55	4,015,786.02	-	6,373,253.57	-	3,709.44	1,275.12	4,984.56
04-May-21	2,363,205.02	3,960,233.10	-	6,326,818.12	-	3,700.80	2,348.18	4,949.18
05-May-21	2,439,885.55	4,015,699.71	6,930.84	6,462,516.11	-	3,749.76	1,008.84	4,758.60
06-May-21	2,431,524.83	4,007,911.47	48,503.84	6,487,930.14	-	3,793.92	-	3,793.92
07-May-21	2,653,127.23	3,920,411.31	66,861.46	6,360,312.00	-	3,716.16	-	3,716.16
08-May-21	2,373,527.23	3,950,158.13	65,056.18	6,389,411.54	-	3,680.64	-	3,680.64
09-May-21	2,359,549.91	3,901,076.73	63,668.92	6,374,294.06	-	3,690.24	-	3,690.24
10-May-21	2,361,220.79	3,941,937.08	44,892.56	6,349,650.36	-	3,707.62	-	3,707.62
11-May-21	2,379,446.83	3,758,453.01	34,853.70	6,172,753.54	-	8,049.84	-	8,049.84
12-May-21	2,417,674.99	3,909,120.02	34,667.70	6,411,462.71	-	3,632.64	-	3,632.64
13-May-21	2,401,806.95	3,991,381.84	34,149.98	6,427,252.77	-	3,606.88	-	3,606.88
14-May-21	2,340,116.99	3,996,008.20	38,325.00	6,375,049.79	-	3,712.32	200.34	3,912.66
15-May-21	2,311,205.79	3,900,011.43	61,585.18	6,293,817.33	-	3,769.92	-	3,769.92
16-May-21	2,335,049.71	3,876,763.48	63,367.08	6,275,180.27	-	3,663.36	-	3,663.36
17-May-21	2,368,155.33	4,030,355.30	64,629.60	6,463,040.23	-	3,705.60	-	3,705.60
18-May-21	2,384,605.67	4,050,535.28	67,336.92	6,503,338.08	-	3,856.32	-	3,856.32
19-May-21	2,319,548.75	4,061,401.00	65,604.28	6,446,574.03	-	3,750.72	-	3,750.72
20-May-21	2,325,131.95	3,993,979.76	66,142.86	6,385,254.17	-	3,725.76	-	3,725.76
21-May-21	2,329,126.53	3,828,703.94	69,837.96	6,223,338.43	-	12,845.44	-	12,845.44
22-May-21	2,363,502.20	3,730,802.33	64,129.38	6,158,533.91	-	2,376.00	-	2,376.00
23-May-21	2,388,401.33	3,731,634.89	63,214.90	6,183,064.94	-	1,156.32	-	1,156.32
24-May-21	2,336,428.27	3,810,989.49	63,952.70	6,211,370.46	-	1,181.52	-	1,181.52
25-May-21	2,326,178.33	3,898,901.13	61,403.40	6,286,484.89	-	5,605.20	-	5,605.20
Total	70,946,978.86	119,112,175.55	1,488,583.88	191,567,738.30	-	128,682.80	4,686.92	133,569.72



Transfer.

Transfers follow a clear process of order fulfilment

- Specify source, destination, and volume
- Allocate certificates from your stock list
- Confirm transaction for immediate delivery

Transfer orders can be built in advance with allocated certificates reserved to prevent them from being include on other orders

New Transfer

[✓ Create and allocate](#) [✓ Create](#) [✕ Close](#)

Source account code: DEMO001 - Demo Trade Acc 001 **>>** Destination account code: DEMO002

Volume: 100

Notes:

Draft / In-progress Transfer Requests

Search: [CSV](#)

Source Account	Dest Account	Reserved / Requested Vol	Last Actioned	Status	
DEMO001	DEMO002	500 / 500	44 minutes ago	Draft	Submit
DEMO001	DEMO002	■ /100	44 minutes ago	Draft	Allocate

DEMO001 **>>** DEMO002

Demo Trade Acc 001 | Test Participant Trade Account Demo Trade Acc 002 | Test Participant Trade Account

100 IREC Certificates

Device	Fuel	Technology	Period Start	Period End	Volume
Sheffield Wind Farm 01	Wind	Onshore	2020-09-15	2020-09-26	100

Please note that this process cannot be undone, please be certain you wish to proceed before submitting this transfer.

[← Go Back](#) [Transfer Now](#)



Redemption.

Redemption is the final act in the life of an I-REC

Beneficiary (end user) must be nominated at this point

I-REC does not restrict redemption, but acceptance of certificates for certain purposes may be defined by others



Redemption uniquely allocates and provides tracking of I-RECs from the point of generation to a beneficiary

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THE INTERNATIONAL REC STANDARD

This Redemption Statement has been produced for
[Beneficiary Name]
by
[Participant Name]
confirming the Redemption of
201
I-REC Certificates, representing 201 MWh of electricity generated from renewable sources
This Statement relates to electricity consumption located at or in
[Beneficiary Location]
in respect of the reporting period
2020-01-01 to 2020-06-30
[Optional Participant Logo]

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QR Code Verification
Verify the status of this Redemption Statement by scanning the QR code and entering in the Verification Key 5
Verification Key
8 1 8 9 2 3 9 4
<https://evident.tradingpublic.com/certificateverify/4/when/2020/06/30/81892394>

Redeemed Certificates

Production Device Details						
Device	Country of Origin	Energy Source	Technology	Supported	Commissioning Date	Carbon (CO ₂ / MWh)
		Hydro-electric	Dam	No	2011-02-01	0.000

Redeemed Certificates					
From Certificate ID	To Certificate ID	Number of Certificates	Offset Attributes	Period of Production	Issuer
		201	Exc	2020-01-01 - 2020-02-29	◀◀◀

Auditor Notes

This statement is proof of the secure and unique redemption of the I-RECs stated above for the named beneficiary to be reported against consumption in the country during the reporting year stated. I-RECs are assigned to a beneficiary at redemption and cannot be further assigned to a third party. No other use of these I-RECs is valid under the I-REC Standard.

Where offset attributes are 'inc' the device registrant, who exclusively holds the environmental attribute rights, has undertaken never to release carbon offsets in association with these MWh; 'exc' means carbon offsets relating to these MWh may be traded independently at some point in the future.

For labelling scheme information please refer to the scheme's website. Labelling scheme listing may not be exhaustive.

Thermal plant emit carbon as part of the combustion process. Whilst this is not zero carbon, it is generally recognised as carbon neutral where the source is recent biomass.



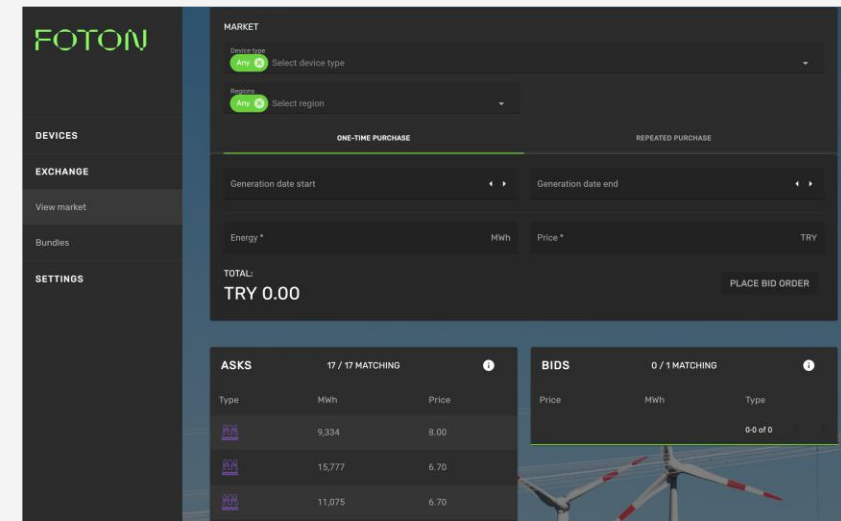
API Integration.

API architecture enables innovation and supports a vibrant community of solution providers

Current integrations enable:

- Bespoke country interfaces
- Onboarding and registration
- Automated data provision
- Marketplaces
- Bulk redemption

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Service Philosophy

- Or philosophy is:
not to “be everything”
but to “**support everyone**”
- We focus on best practice,
delivering what we do best: **trusted
data from a single source of truth**
- The Evident Registry service is
designed to support a range of
platforms and marketplaces



Registry Q4-22 release.



- Scheduled for October 2022
- Result of a one-year pilot programme Evident developed for Google
- **Landmark functionality update**



Granular certificates.

- Two significant changes:
 1. I-REC(E) *will* have **Wh resolution** enabled for all transactions and redemptions (can still use MWh)
 2. I-REC(E) *may* have **timecoded generation data** attached
- Timecoded data can be used for Issuing, Transfers, and Redemptions: **only via API**
- Transfers and redemptions by UI will by default use the earliest data within any timecoded block of certificates



Registry Roadmap.

Q4-22:

- Hybrid certificates
- Granular
 - ❖ Time-based
 - ❖ 1Wh resolution



Q1-23:

- Sustainable Aviation Fuel pilot registry

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Q1-23:

- Hydrogen pilot registry



Q2-23:

- Unified:
 - ❖ I-REC(E)
 - ❖ C-Capsule
 - ❖ MiQ
 - ❖ Hydrogen
 - ❖ Aviation fuel

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Q4-23:

- Something new for COP



Q4-22:

- C-Capsule pilot registry



Q1-23:

- Major infrastructure upgrade
- Encumbrance accounts



Q2-23:

- Enhanced labelling
- Electricity storage
- Beneficiary portal

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Q3-23:

- Minor infrastructure upgrade
- Granular via UI

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Registry Q1-23 release.

- Major upgrade to technology platform
 - Part of our “18-24” review cycle, where we reconsider our technology every 18-24 months and redevelop to ensure are up to date with best practice
- “Encumbrance” accounts
 - Required for some marketplace structures



Registry Q2-23 release.

- Beneficiary portal
 - First step in providing a “one-stop” view of Redemptions
- Enhanced labelling support
 - Allows multiple labels to be applied to certificates
- Redemption Authority role
 - Allows organisations, such as RE100, to confirm Redemptions meet their criteria



Registry Q2-23 release.

- Electricity storage
 - Robust “principle-based” methodology being developed by the I-REC Foundation
 - Flexible to support national methods
- $N * I-REC \text{ in} : N * ef. * I-REC \text{ out}$
 - Preserve energy source data
 - Correctly allocate efficiency losses



Registry Q2-23 release.

- Unified registry
 - I-REC(E)
 - Electricity: c.60 countries (growing)
 - C-Capsule
 - Carbon removals: global
 - MiQ
 - Low-methane natural gas: global
 - Hydrogen
 - All hydrogen technologies: global
 - SAF
 - Sustainable aviation fuels: global
- Markets: **Global**



I-REC
STANDARD

Accredited.

- Independent Foundation assessment of quality:
 - Design
 - Management
 - Development
 - Operation
 - Security
 - Maintenance
- Evident also submits all these elements for additional third-party assessment

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Developed In-House.

- Deep understanding within the developer team
- Focussed on registries:
 - Only registries!
- Allows for fast response to ideas
- Experienced with integrating with multiple third-party systems
- Open to ideas...



Open API Framework.





Innovators.

- Unlike most AIB and US registries, we are not constrained
- Open: not closed
- Partners: not competitors
- Enablers: not inhibitors
- Quality-first approach
- New products and services
- Pathways: not barriers

Thank you.



Ed Everson

CEO