

EVENT CARBON ASSESSMENT

Responsible BESS Development Summit 2026 — Melbourne

27 October 2026 • Novotel on Collins • a note for participants

Document	Public event carbon assessment for participants
Event	Responsible Battery Energy Storage Development Summit 2026 — Melbourne
Date and venue	Tuesday 27 October 2026 • Novotel on Collins, 270 Collins Street, Melbourne
Prepared for	Summit participants and Enhar ReGen stakeholders
Prepared by	Enhar ReGen, with Treecoin Assets Pty Ltd (ABN 60 646 805 307)
Date of this version	2 October 2026
Method	Climate Active event sources • GHG Protocol • NGA Factors 2025
Basis	150 in person + 50 online • 8-hour catered day • 60% local, 40% interstate, 1 Norway speaker

Enhar ReGen has measured the greenhouse-gas footprint of the Melbourne summit and will retire more verified forest carbon than that footprint. This note explains the estimate, the sources behind it, and the retirement Enhar ReGen has already committed to.

1. Purpose and what we will do

Battery energy storage systems (BESS) are part of the energy transition. Hosting a national conversation about responsible BESS development should not ignore the emissions of the conversation itself. This assessment estimates those emissions and sets out how they will be addressed.

This is a planning estimate for a public event, not a Climate Active certification and not an audited greenhouse-gas inventory. A certified account would need post-event records: registration origins, venue meters and catering invoices. Airline offset options selected by travellers are not deducted. Nothing is subtracted from the gross footprint.

2. Event profile

Public details are from the organiser site, secure.enhar.com.au. Headcount, catering and the travel split are the planning basis Enhar ReGen set for this version: 150 people in the room, 50 online, a full lunch, 60 per cent local Victorian travel, about 40 per cent interstate, and one speaker flying from Norway.

Field	Detail
Official name	Responsible Battery Energy Storage Development Summit 2026
Edition	Melbourne — second city in the 2026 series (Sydney was held on 8 May)
Organiser	Enhar ReGen • secure.enhar.com.au
Venue	Novotel on Collins, 270 Collins Street, Melbourne VIC 3000
Hours	Registration 08:30 • start 09:00 • close about 17:00
Format	Hybrid — in-person plenary and virtual attendance
Headcount used	150 in person • 50 online • 200 in total
Catering	Full hotel lunch, plus morning and afternoon tea and coffee
Travel split	60% local Victoria • about 40% interstate • 1 international speaker (under 1%)

The published agenda runs from Welcome to Country and opening remarks through planning, noise, fire safety and community sessions to a close around 17:00. That is a full hotel conference day, consistent with an eight-hour event and a catered lunch.

3. How the estimate is built

The inventory is activity multiplied by a published emission factor. Where an Australian National Greenhouse Accounts (NGA) factor exists, it is used. The boundary follows the sources the Australian Government Climate Active Carbon Neutral Standard for Events treats as relevant, mapped to the Greenhouse Gas Protocol (GHG Protocol):

- Electricity and energy used to run the event (heating, ventilation and air conditioning — HVAC — lighting, audiovisual (AV) and kitchen).
- Travel by participants, speakers and organisers, on the ground and in the air.
- Food and drink consumed at the event.
- Accommodation for guests who are not local.
- Materials, freight and waste.
- Virtual attendance and streaming.

Scope 1 is direct fuel use at the venue. Scope 2 is purchased electricity. Scope 3 is everything else in the list above, including travel, catering, accommodation and online participation. Out of scope: travel after guests leave Melbourne for unrelated business.

Two aviation treatments are disclosed. The primary figure uses the planning factors from Enhar ReGen's event calculator: 0.182 kilograms of CO₂e per passenger-kilometre (kg CO₂e/pkm) for domestic flights and 0.151 kg CO₂e/pkm for international flights. Both already include a conservative uplift for aviation effects. A separate sensitivity shows what happens if a full radiative-forcing (RF) multiplier is applied to fuel-only factors. The retirement is set off the primary figure, not off that upper case.

4. Activity assumptions

Travel — 60 % local, about 40 % interstate, one international speaker

Of 150 in-person guests, 90 (60 %) are treated as local Victorian, 59 (39%) as interstate, and 1 (0.7%) as the speaker flying from Europe. Local mode share follows how people reach Collins Street: car, train or tram, a small taxi share, and a few people on foot or by bicycle.

The interstate 59 are an industry mix: mostly the Sydney energy cluster, then Brisbane, Adelaide and Perth, plus a handful of regional road trips. Speakers already listed on the event page sit inside this 150. The 1 x international flyer is assumed Oslo–Melbourne, estimated at 31,858 kilometres return flight.

Cohort	People	Activity	Share	Emissions
Local — car	42	50 km return	28%	0.40 t
Local — train or tram	36	40 km return	24%	0.07 t
Local — taxi or rideshare	10	25 km return	7%	0.05 t
Local — walk or cycle	2	—	1%	0.00 t
Interstate — Sydney return	38	1,426 km air	25%	9.86 t
Interstate — Brisbane return	8	2,748 km air	5%	3.98 t
Interstate — Adelaide return	5	1,308 km air	3%	1.19 t
Interstate — Perth return	3	5,442 km air	2%	2.97 t
Regional road	5	350 km return	3%	0.34 t
International — Oslo return	1	31,858 km air	0.7%	4.81 t
Local subtotal	90	60% of in-person	60%	0.53 t
Interstate subtotal	59	about 40% of in-person	39%	18.34 t
International subtotal	1	under 1% of in-person	0.7%	4.81 t
Travel total	150		100%	23.68 t

Local travel is 0.53 tCO₂e. Interstate travel is 18.34 tCO₂e. The single Oslo return is 4.81 tCO₂e — under 1 per cent of the people, and about 18 per cent of the footprint. Combined travel is 23.68 tCO₂e, 87 per cent of the central inventory. That share is normal for a national conference.

Accommodation

Seventy-five per cent of the 60 non-local guests are assumed to take a hotel night in the central business district (CBD), and some stay two nights around a Tuesday event. That is 52 room-nights at 32 kg CO₂e, or 1.66 tCO₂e. Local guests are assumed to use home accommodation. The 32 kg figure reflects Victorian grid electricity emissions-intensity and a Collins Street 4-star night being above a national average hotel room.

Catering

One hundred and fifty in-person covers: a mixed hot lunch, morning tea, afternoon tea, and tea or coffee. A factor of 6.0 kg CO₂e per diner covers a meat-inclusive hotel plate and the breaks. Virtual guests are not catered. Total 0.90 tCO₂e. A plant-forward default would move this line toward that lower band, a saving of about 0.3 tCO₂e.

Venue energy and AV

The Australia Ballroom or an equivalent function space, plus foyer and production, for eight hours on the Victorian grid. The estimate is about 600 kilowatt-hours of electricity plus kitchen gas, rounded to 0.55 tCO₂e. Novotel on Collins is an Accor hotel with a published sustainability programme. This assessment still uses location-based Victorian grid intensity, 0.87 kg CO₂e per kilowatt-hour, rather than assuming GreenPower. If the function rooms are on a documented renewable contract, this line can be restated.

Virtual attendance, materials and waste

Fifty online guests for eight hours, at 0.036 kg CO₂e per person-hour for device, household electricity and streaming, plus a small production overhead, is 0.04 tCO₂e. Hybrid is not zero-carbon. It is far smaller than one Oslo return. Lanyards, light print, banner freight and residual landfill are 0.25 tCO₂e. Water, wastewater and recycling are immaterial at this scale and sit inside that line.

5. Emission factors

Source	Factor used	Basis
Victorian grid electricity	0.87 kg / kWh	NGA 2025 location-based Scope 2 + 3
Petrol or diesel car	0.192 kg / pkm	NGA 2025 planning benchmark, average occupancy
Taxi or rideshare	0.21 kg / pkm	Lower occupancy than a private car
Melbourne train or tram	0.05 kg / pkm	NGA-aligned public transport planning factor
Domestic flight	0.182 kg / pkm	NGA 2025 planning factor, with a conservative aviation uplift
International flight	0.151 kg / pkm	NGA 2025 planning factor, with a conservative aviation uplift
Hotel night, Victoria	32 kg / room-night	4-star planning figure on the Victorian grid
Conference day catering	6.0 kg / diner	Mixed lunch plus breaks; ADEME meal benchmarks inform the range
Online attendance	0.036 kg / person-hour	Device, network and platform planning assumption

Factors will move if post-event data arrives. The structure of the inventory will not. Full sources are in Section 11.

6. Result

Source	tCO ₂ e	Share	Notes
Attendee and speaker travel	23.68	87%	Interstate flights plus one Oslo return
Overnight accommodation	1.66	6%	52 room-nights at 32 kg
Catering, lunch and breaks	0.90	3%	150 diners x 6.0 kg
Venue energy and AV	0.55	2%	Ballroom, foyer and production, Victorian grid

Materials, freight and waste	0.25	1%	Print, signage, freight, landfill
Virtual attendance and stream	0.04	<1%	50 online guests plus a small production overhead
Central total	27.1	100%	Planning estimate, not a certified account

Central estimate: 27.1 tCO₂e for 200 people. That is about 181 kg CO₂e per in-person guest, or 136 kg if the 50 online guests are included in the denominator. Almost all of the per-person figure is flying, not the lunch.

Sensitivity

Scenario	tCO ₂ e	What changes
Lower bound	21	More public transport, plant-forward menu, fewer long-haul flights
Central estimate — this paper	27.1	Assumptions in Section 4
Conservative bound	34	Central estimate plus a 25% uncertainty buffer
Upper aviation sensitivity	about 36–40	If a full radiative-forcing multiplier is applied on top of fuel-only factors

The working range without a full radiative-forcing case is about 21–34 tCO₂e. The primary factors already include a conservative aviation uplift, so the upper case is disclosed rather than used as the claim.

7. The retirement Enhar ReGen will make

Treecoin's role is to make forest growth a paid activity: people generate wealth while reforesting. Retiring XCC for this summit is a direct use of that platform. Tokens are bought from live, audited forest projects and Carbon-Locked, which permanently removes them from circulation. Platform status and terms are at www.treecoin.global and treecoin.global/terms-conditions.

Indicative pricing below uses about USD 9.07 an XCC, the August 2026 dashboard figure. The commitment is in tonnes, not dollars. Price on the day of purchase may differ. Live platform scale at that dashboard read: 53 active forest projects, 40,277 t of XCC generated, and 798 t already retired. One hundred and forty XCC is a small slice of existing supply.

Option	XCC	Indicative USD	Positioning
A. Match the central estimate	28	about \$254	Like-for-like with the measured residual
B. Cover the conservative bound	34	about \$308	Includes the 25% uncertainty buffer
C. Three-times over-retirement	81	about \$735	The multiple Treecoin uses as a mid standard
D. Five-times — Enhar ReGen commitment	140	about \$1,270	Chosen commitment: above 5x the central estimate

Enhar ReGen has advised it will retire 140 XCC. Five times the central estimate of 27.1 tCO₂e is 136 XCC. The commitment rounds that up, so the public claim sits above the five-times line rather than just on it. Options A to C stay in the table so the step-up is visible: a matched residual, a conservative bound, a three-times multiple, and the five-times commitment being made.

The framing for participants is specific. This is not a claim that the summit was operationally zero-carbon. Flights still happened. The claim is: a measured residual of 27.1 tCO₂e, and a retirement of 140 t of verified forest removal — forest support and drawdown, over and above the event.

How the retirement is executed

- Enhar ReGen purchases 140 XCC on the Treecoin platform, preferring Australian projects with satellite or AI verification, a clear permanence story, and co-benefits for biodiversity or community.
- The holding is Carbon-Locked so the tokens cannot be resold. The transaction reference, project names and tonnes locked will be recorded.
- Information will be shared in event materials: method, tonnes estimated, and XCC retired.

8. Reduce first, then retire

Retirement does not replace the reductions still available before 27 October.

- Make the default lunch plant-forward, with meat as an option. That is visible in the room and saves about 0.3 tCO₂e.
- Put public-transport directions on the joining note: Flinders Street, Melbourne Central, and trams 11, 12, 48 and 109. Local car kilometres are the only local lever that matters.
- Ask interstate speakers who are already in Melbourne that week to avoid a separate return. Each avoided Perth or Brisbane return is 0.5 to 1.0 tCO₂e.
- Ask Novotel whether function-room electricity is on a renewable contract, and keep the invoice.
- Skip single-use plastic and under-order slightly on the buffet.

None of those cuts change the fact that flights are the inventory. They do change whether the retirement looks like a substitute for care, or the last step after care.

9. After the event

This estimate is intended to be suitable to retire against ahead of the event. It will become a stronger public statement if four records are collected from the actual event:

- Origin city or postcode, and mode, from registration or a two-question door survey.
- Venue electricity and gas for the function rooms, or a written allocation from Novotel.
- Final cover count and the meat, vegetarian and vegan split.
- Hotel room-nights booked under the event code.

If the actuals come in below 27.1 tCO₂e, the 140 XCC retirement stands. The surplus is a contribution, not a refund. If they come in above, the lock can be topped up.

10. References

Acronyms used above: BESS, battery energy storage systems; GHG, greenhouse gas; tCO₂e, tonnes of carbon dioxide equivalent; XCC, Treecoin carbon token; NGA, National Greenhouse Accounts; HVAC, heating, ventilation and air conditioning; AV, audiovisual; CBD, central business district; RF, radiative forcing; ADEME, the French Agency for Ecological Transition.

[National Greenhouse Accounts Factors 2025](#) — Victorian electricity 0.87 kg/kWh (Scope 2 + 3), natural gas 51.53 kg/GJ, petrol and diesel combustion, car 0.192 kg/pkm, public transport 0.05 kg/pkm, domestic air 0.182 kg/pkm, international air 0.151 kg/pkm, landfill planning factor.

[Climate Active Carbon Neutral Standard for Events](#) — Deemed-relevant event sources: electricity, attendee travel, food and drink, accommodation.

[ADEME Base Empreinte](#) — Meal and drink planning benchmarks: 3.4 kg meat meal, 1.1 kg meat-free meal, 0.3 kg a drink.

[US EPA WARM](#) — Life-cycle context for paper and mixed event materials. Not the exact coefficient.

[Oslo to Melbourne air distance](#) — 15,929 km one way; 31,858 km return used for the Norway speaker.

[Responsible BESS Development Summit](#) — Event date, venue, hours and public agenda.

[Novotel Melbourne on Collins — meetings](#) — Venue capacity and function-space context.

[Greenhouse Gas Protocol — Corporate Standard](#) — Scope 1, 2 and 3 structure.

[Treecoin platform](#) — Live projects, XCC, and retirement.

[Treecoin Terms and Conditions](#) — Token, retirement and platform terms at the time of purchase.

Hotel room-night of 32 kg CO₂e, taxi at 0.21 kg/pkm, the 6.0 kg conference-day catering factor, and the ballroom energy estimate are Enhar ReGen planning assumptions. They should be replaced with Novotel and caterer data after the event if available.

12. Summary

The Melbourne Responsible BESS Development Summit, at 150 people in the room and 50 online, with a full hotel lunch, 60 per cent local Victorian travel, about 40 per cent interstate, and one speaker from Norway, has a central residual of 27.1 tCO₂e. Travel is 23.7 t of that. A conservative public bound is 34 tCO₂e.

Enhar ReGen has committed to retire 140 XCC. That is the five-times standard applied to the central estimate and rounded up. It is forest support and drawdown, over and above the event, and it is the figure participants should treat as the commitment.

Measure, reduce what is affordable and achievable, then retire more high-integrity forest removal than the residual emissions. That is treecoin's recommended standard applied to this summit.

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