# GRI Sustainability Report 2021-2022

Tip

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# Tony lp Green Architects

## **Tony Ip Green Architects**

## Architects, who specialize in sustainable design and strive to limit global warming to 1.5°C



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## Tony Ip Green Architects Limited

**Tony Ip Green Architects Limited "TiP**" is a registered architectural practice in Hong Kong with community-centric architects and designers, who specialise in sustainable design and advocate the paradigm shift to green architecture and biophilic urban-scape at the tipping point of climate change.

**TiP**'s interdisciplinary and integrated expertise and experience drive us to achieve decarbonising, regenerative, climate resilient and cost-effective design ideas and project execution, especially in high-density high-rise urban contexts. Our scope of services includes urban design, master planning, architectural design and execution, landscape design, interior design and build, and green material innovation, together with sustainable design and green professionals' input throughout the whole project process.

Total number of operation: 1 (office in Hong Kong)	2-1c
Total services provided: 1 (architectural practice)	
Number of employees: 11 full-time employees (as of 30 June 2022)	2-7

#### Governance

TiP is a private limited company. The company has no joint ventures, subsidiaries or outsourced2-1boperations. The practice is managed by Director Tony Ip, who is the founder of the company.2-62-92-9TiP has obtained ISO9001:2015 and ISO14001:2015, which form the basis for the management2-11

**TiP** has obtained ISO9001:2015 and ISO14001:2015, which form the basis for the management of the majority of material topics. This is reviewed and certified by Socotec Certification Hong Kong Limited.

**TiP** is a Corporate Member of the Hong Kong Institute of Architects (HKIA) and under the List of Band 3 Architectural Consultants of HKIA.

#### Advocacy

TiP advocates:	
Green Materials & Innovation:	to eliminate the use of materials with adverse impacts on
	humans and the ecosystem.
Zero Carbon Architecture:	to design zero carbon or super low carbon buildings to reduce embodied and operational carbon.
Urban Microclimate Design:	to adopt the passive design to guide the design, construction and operation process.
Green Neighbourhood for All:	to facilitate our children and senior citizens to play and enjoy the outdoors with neighbours and nature.
Biophilic High-rise Living:	to promote healthier and more active lifestyles and day-to-day interactions with nature at multi-levels.
Green Community Action:	to nurture the next generations to become future leaders in advocating green architecture and sustainability.

**TiP** has signed with BEC Low Carbon Charter – targets aligned with climate science, the Paris Agreement's goals, and Hong Kong Zero Carbon Partnership.

The organisation's values and principles are publicly available on **TiP**'s website (<u>www.tonyip.green/vision</u>).

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## About This Report

<b>Tony Ip Green Architects Limited</b> ( <b>TiP</b> ) has reported in accordance with GRI Standards for the period from 1 July 2021 to 30 June 2022. The sustainability reporting period is aligned with the annual financial reporting period. Over the reporting period, <b>TiP</b> has operated solely in Hong Kong SAR.	2-2 2-3a 2-3b
<b>TiP</b> conducts sustainability reporting by adopting the Global Reporting Initiative, which provides a transparent and comparable framework for sustainability reports. This is <b>TiP</b> 's second annual sustainability report. The previous reporting period was from 1 July 2020 to 30 June 2021. There is no conflict of interest in reporting and no critical concern during the reporting period.	2-4 2-15 2-16
This report is prepared in accordance with the GRI Standards, based on the Universal Standards 2021. This report is endorsed by Tony Ip, who is the Director of <b>TiP</b> and the GRI Certified	0.44
Sustainability Professional.	2-14

This report was published on 30 April 2023.	0.0-			
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### Topics / Material Boundaries

The following themes have been identified as key areas within our business that should be reported on.

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- Environmental Management of the Practice
- Environmental Impact of the Practice
- Culture of the Practice
- Community Engagement

The second step in defining the content of this report is the prioritisation of these themes based on their materiality and boundaries. The boundaries of the relevant topics have been identified and prioritised with stakeholders, including **TiP**'s employees and working partners, as the baseline year's scope. Additional topics will be anticipated in the subsequent reports. The material topics are as follows.

Торіс	Boundary	Materiality (including material entities and limitations)	3-2
Materials	Within	On-going consumables & appliances in TiP office	
Energy	Within	Direct energy consumption of TiP office	
Emissions	Within	Direct (Scope 1) emissions, energy indirect (Scope 2) emissions and other indirect (Scope 3) emissions	

Since **TiP** opened four years ago, colleagues have continued the culture of cooking and sharing lunch together, eating healthy meals, and serving heart-warming dishes from time to time.

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## Materials

#### **TiP Office Operation**

Within the organisation, **TiP** has adopted the 5R principles (rethink, reduce, reuse, replace and recycle) in material purchasing and usage. The key environmental attributes are:

- Minimise the use of virgin materials
- Reduce energy and water consumption
- Avoid the use of toxic substances
- Adopt green-certified products or products from environmentally certified processed
- Reuse and recycle products at the end of their life
- Use products with minimised packaging
- Dispose of waste in a proper way

Green purchasing of ongoing consumables and office appliances is as follows:

0	FSC Certified, coating free, chlorine free
	refillable
	Energy Star
	LED Lighting
	VOCs free, water-based, CIC Green Product Certified (HK G-PASS)
	Grade 1 Energy Label
	Ū

**TiP** upkeeps a material library which includes material samples and catalogues with the indication of environmentally friendly building materials and certified green products.

#### **TiP Project Missions**

**TiP** envisions adaptive use and revitalisation for the community. The projects target reducing demolition waste, conserving resources and reducing environmental impacts during the construction.

Adaptive use and revitalisation strategies adopted for the **TiP** projects completed within the reporting period are highlighted as follows.

611 Bread of Life Christian Church – Creative Media Centre	REVITALISATION OF INDUSTRIAL BUILDING A 3-storey creative media centre composed of an art studio, audio-visual recording studio, design media production office, and research design centre by revitalising existing industrial building in an area of 3 000 $m^2$
I. Park 1 Lantau South Information Office for Integrated Waste Management Facility	ADAPTIVE USE + ADVANCING NET ZERO CARBON An information centre by revitalising the existing committee building and applying sustainable features to create an attractive and informative exhibition space while promoting the importance of conserving nature through interactive display designs It targets to achieve carbon neutrality during operation
Hong Kong Institute of Biotechnology GMP Facility for Cell Therapy Manufacturing	RENOVATION OF EXISTING BUILDING TO WORLD-CLASS LAB A world-class good manufacturing practice facility for life-saving cancer therapies and advanced biomedical research, which is the first in Hong Kong



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### Energy

#### **TiP Office Operation**

Air-conditioning, lighting, computers, a printer, a refrigerator, an electric water dispenser, electric cooking appliances and small appliances in the office consume electricity. Electricity consumption within the reporting period is summarised as follows. The data is extracted from the monthly electricity bills.

Month	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022
Electricity (kWh)	1,561	1,397	1,388	1,086	1,147	1,197	924	812	753	1,174	1,064	1,369
Energy (MJ)	5,620	5,029	4,997	3,910	4,129	4,309	3,326	2,923	2,711	4,226	3,830	4,928

The total electricity consumption in the reporting period is 13,872 kWh (49,939 MJ) [13,216 kWh (47,578 MJ) in the previous reporting period].

The numbers of full-time employees in the reporting period are listed below. Interns, who worked full-time in the office in particular months, are also indicated for the better elaboration of the energy intensity of the office operation.

Month	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022
No. of Full-time Employees	14	13	14	14	14	14	13	12	12	12	12	11
No. of Full-time Employees & Interns	20	20	14	14	14	14	13	12	12	12	12	17

The average annual amount of electricity per full-time employee is 1,076 kWh/person [1,183 *kWh/person in the previous reporting period*]. The average annual amount of electricity per full-time employee (including full-time employees & interns) is 961 kWh/person [1,056 kWh/person in the previous reporting period].

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#### **TiP Project Achivements**

In the reporting period, TiP projects have received green building awards and certificates:

Hong Kong Repertory Theatre Performing Arts Education Centre	Green Building Award 2021 Merit Award
Jockey Club – The Conservancy Association Urban Forestry Green Hub	BEAM Plus New Building Platinum (Provisional)
HKSKH Lady MacLehose Centre Jockey Club Kwai Wah Health and Wellbeing Centre	BEAM Plus Interiors Silver



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## Emissions

The assessment boundary of TiP's greenhouse gas (GHG) emissions is shown below.



#### Scope 1 – Direct GHG Emissions

Scope 1 refers to direct GHG emissions from sources that are owned or controlled by the organisation. No fuel combustion and no process emissions are from the **TiP**'s office, and **TiP** does not own or lease any vehicle. Fugitive emissions from the fridge (purchased by **TiP**) and the air conditioners (installed by the landlord) are considered in the scope 1 emissions.

	Fridge Model No.: FDG252M185 Refrigerant: R600a	Air Conditioners Model No.: PUMY-P112YKM Refrigerant: R410A
Amount of refrigerant, capacity (kg)	0.045	10.9
Global Warming Potential GWP	4	1,725
Installation emission factor (% of capacity)	1	1
Operating emissions (% of capacity/year)	0.5	10
Direct GHG emissions (tCO2e)	0.0000027	2.068

TiP Direct (Scope 1) GHG Emissions are 2.07 tCO2e [2.07 tCO2e in the previous reporting period].

#### Scope 2 – Energy Indirect GHG Emissions

Scope 2 refers to indirect GHG emissions that result from the generation of purchased or acquired electricity, heating, cooling, and steam consumed by the organisation. TiP's office electricity is supplied by the power company, CLP Power Hong Kong Ltd. CLP emission factor for 2021 is 0.39 kgCO2e/kWh. Hong Kong's territory-wide default emission factor is 0.7kgCO2e/kWkh.

	Energy Indirect GHG	Energy Indirect GHG
	Emission	Emission
	(Power company specific)	(Territory-wide default value)
Amount of purchased electricity (kWh)	13,872	13,872
Emission factor (kgCO2e/kWh)	0.39	0.70
Indirect GHG emissions (tCO2e)	5.41	9.71

**TiP** Energy Indirect (Scope 2) GHG Emissions (market-based approach) are **5.41 tCO2e** [4.89 tCO2e in the previous reporting period].

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**TiP** Energy Indirect (Scope 2) GHG Emissions (location-based approach) are **9.71 tCO2e** [9.25 tCO2e in the previous reporting period].

#### Scope 3 – Other Indirect Emissions

Scope 3 refers to indirect GHG emissions not included in energy indirect (Scope 2) GHG emissions that occur outside the organisation, including upstream and downstream. This report considers upstream Scope 3 emissions under the following categories.

#### Category 1 – Purchased goods and services (i.e., papers, water)

	Papers
Amount of paper purchased (sheet)	20,500
Amount of paper purchased (kg)	102.50
Emission factor for papers (kgCO2e/kWh)	1.55
Indirect GHG emissions (tCO2e)	0.16
	Water
Amount of fresh water consumed (m3)	27
Emission factor for processing fresh water by Water Supplies Department (kgCO2e/kWh)	0.7
Indirect GHG emissions (tCO2e)	0.02

#### Category 2 – Capital goods (i.e., computers)

	Computers	
Amount of desktop computers purchased (set)	1	
Emission factor for desktop computer (kgCO2e/kWh)	318.467	
Indirect GHG emissions (tCO2e)	0.32	

#### Category 5 – Waste generated in operations (i.e., paper waste disposal, sewage)

	Paper Waste
Amount of paper used (sheet)	23,229
Amount of paper used (kg)	116.15
Amount of paper for recycling (kg)	75
Amount of paper waste disposed at a landfill (kg)	41.15
Emission factor for paper waste disposal (kgCO2e/kWh)	4.8
Indirect GHG emissions (tCO2e)	0.20
	Wastewater
Amount of wastewater discharged (m3)	27
Emission factor for processing sewage by Drainage Services Department (kgCO2e/kWh)	0.7
Indirect GHG emissions (tCO2e)	0.02

#### Category 6 – Business travel

	Business Travel	
Taxi: Amount of Indirect GHG emissions (kgCO2e)	347.38	_
Mass Transit: Amount of Indirect GHG emissions (kgCO2e)	74.09	
Total Indirect GHG emissions (tCO2e)	0.42	_

#### Category 7 - Employee commuting

Total Indirect GHG emissions (tCO2e)

Employee Commuting

1.19

**TiP** Other Indirect (Scope 3 Upstream) GHG Emissions are **2.32 tCO2e** [3.61 tCO2e in the previous reporting period].

**TiP** Scope 1 + Scope 2 (market-based) + Scope 3 (Upstream) GHG Emissions are **9.61 tCO2e** [10.57 tCO2e in the previous reporting period]. There is an 8.96% reduction compared with the previous reporting period.

**TiP** Scope 1 + Scope 2 (location-based) + Scope 3 (Upstream) GHG Emissions are **14.10 tCO2e** [14.93 tCO2e in the previous reporting period]. There is a 5.48% reduction compared with the previous reporting period.

#### **GHG Emissions Intensity**

Scope 1 and Scope 2 (market-based) GHG Emissions are 7.29 tCO2e [6.96 tCO2e in the previous reporting period]. There is a 4.74% increase compared with the previous reporting period.

Scope 1 and Scope 2 (market-based) GHG Emissions Intensity is **0.56 tCO2e/staff** [0.62 tCO2e/staff in the previous reporting period]. There is a 9.45% reduction compared with the previous reporting period.

Scope 1 and Scope 2 (location-based) GHG Emissions are 11.78 tCO2e [11.32 tCO2e in the previous reporting period]. There is a 4.06% increase compared with the previous reporting period. Scope 1 and Scope 2 (location-based) GHG Emissions Intensity is **0.91 tCO2e/staff** [1.01 tCO2e/staff in the previous reporting period]. There is a 10.04% reduction compared with the previous reporting period.

#### **Reduction of GHG Emissions**

**TiP** aims to adopt Science Based Targets using the Absolute Contraction approach. The target reduction trajectory equates to 5% per annum, or 50% by 2030/2031 (10 years), assuming a baseline year of 7/2020 – 6/2021. These reduction targets cover Scope 1 and Scope 2 GHG Emissions. **TiP** commits to reducing absolute Scope 1 and Scope 2 GHG emissions by 50% by 2030 from a 2020 base year and to measuring and reducing its Scope 3 emissions.

In this reporting period, a reduction of Scope 3 GHG Emissions is recorded after the implementation of green office initiatives. There was an 8.96% (market-based) and 5.48% (location-based) reduction of Scope 1 + Scope 2 + Scope 3 (Upstream) GHG Emissions respectively, compared with the previous reporting period.

A reduction in GHG Emissions Intensity is also observed. There was a **9.45% (market-based)** and **10.04% (location-based) reduction of Scope 1 and Scope 2 GHG Emissions Intensity** respectively, compared with the previous reporting period.

However, there was a **4.74% (market-based) and 4.06% (location-based) increase in Scope 1 and Scope 2 GHG Emissions** respectively, which cannot meet the target reduction using the Absolute Contraction approach. Mitigation measures and further review of the reduction targets will be carried out in the forthcoming reporting period.





31/05/2022

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U 秀潮流站-環保家居設計 嘉賓:環保建築師葉頌文(Tony)

31/05/2022 - 足本 Full (HKT 01:05 - 02:00)

### **Community Engagement**

**TiP** envisages that the role is not just that of an architect, but a facilitator for community engagement, a collaborator for inter-disciplinary innovation and an advocator for human-nature interactions in the green building and neighbourhood design process.

#### Serving the Advisory Board & Committees for the HKSAR Government

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- Lantau Conservation Fund Advisory Committee, Development Bureau
- Environment and Conservation Fund Committee, Environment Bureau
- Chairman, Environmental Education & Community Action Projects Vetting Sub-committee, Environmental Campaign Committee
- Antiquities Advisory Board, Development Bureau
- Environmental Campaign Committee, Environment Bureau
- Support Group on Long-term Decarbonization Strategy, Council for Sustainable Development

#### Serving the Profession & NGOs

- Chairman, Hong Kong Architecture Centre
- Director, Hong Kong Green Building Council (HKGBC)
- Director, Construction Industry Council Zero Carbon Building
- Chairman, Materials Aspects Expert Panel, BEAM Society Ltd. (BSL)
- Convener, Steering Committee of BEAM Plus for Schools, BSL
- Convener, Green Product Taskforce, HKGBC
- Deputy Convener, Steering Committee of Sustainable Building Design Guidebook, HKGBC
- Appeal Board, CIC Sustainable Finance Certification Scheme, Construction Industry Council
- Executive Committee, Kowloon Technical School Alumni Association
- Advisor, New Campus of Hong Kong Taoist Association Wun Tsuen School
- Director, Young Men's Christian Association (YMCA) of Hong Kong
- School Manager, YMCA of Hong Kong Christian College
- Chairman, Facilities Maintenance & Development Committee, YMCA of Hong Kong
- Jury Panel Member, HKIP Annual Award 2021, Hong Kong Institute of Planners
- Advisor & Committee Member, Environment & Sustainable Development Committee, HKIA

#### **Speaking at International Conferences**

2021.11.24 Panellist, "International Conference on Advancing Net Zero" on the themes "Enhancing Health and Well-being with Net Zero Buildings, Passive Design – Research & Solutions and Active Design – Research & Solutions", *Hong Kong Green Building Council.* 

#### Sharing at Local Forums, Seminars and Talks

2022.06.18 Speaker, "BEAM Plus – Materials and Waste Aspects", Quality Assurance Workshop for BEAM Assessor 2022, BEAM Society Ltd.

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- 2022.06.10 Speaker, "Creating a Low Carbon Zone" for "Hong Kong Young Leaders Programme 2022", GIFT Global Institute For Tomorrow.
- 2022.06.06 Speaker, "Green Architecture for All", Y Elites Association Hong Kong.
- 2022.06.02 Speaker, "Sustainable Buildings: Green or Gone, Goal or Gold?" for SHARP Forum, *College* of *Business, City University of Hong Kong.*
- 2022.05.28 Speaker, "Green Architectural Journey" for DragoNation Day 2022, DragoNation.

- 2022.05.13 Speaker, "Life and Career Planning in Building Professions", Shun Tak Fraternal Association Cheng Yu Tung Secondary School.
- 2022.04.30 Speaker, "Sustainable Cities and Hong Kong" for "Green Youngsters Award Scheme 2022" Faculty of Science, The University of Hong Kong.
- 2022.04.23 Speaker, "Green Architecture towards Sustainable Development Goals", SDGs Photo Competition Opening Ceremony, JCI Lion Rock.
- 2022.04.09 Speaker, "BEAM Plus Materials and Waste Aspects", *BEAM Assessor Training, BEAM Society Ltd.*
- 2022.04.05 Speaker, "Experimental Interactions with Nature in the City", Hong Kong Gardening Society.
- 2022.04.04 Speaker, "BEAM Plus Materials and Waste Aspects", BEAM Affiliate Training, BEAM Society Ltd.
- 2022.02.24 Speaker, "Green Neighbourhood in High-Density High-rise Cities" for the course "Design Care in the Commons Creative Placemaking", *Faculty of Architecture, The University of Hong Kong.*
- 2021.12.03 Speaker, "(Useful) Data Collection for Benchmarking Sustainable Exhibitions", *Design Dialogue at deTour, PMQ.*
- 2021.11.27 Speaker, the South-South Entrepreneurship Academy on Building Global Citizenship and Harnessing Entrepreneurial Skills and Mindset through South-South Cooperation - 2021 2nd Cohort on "Beauty in Mind and Actions for Sustainable Business", *BEAM Assessor Candidate Training 2021, The United Nations Office for South-South Cooperation (UNOSSC) and the Centre for Business / Social Sustainability and Innovations (BSSI) of the Gratia Business School of Gratia Christian College.*
- 2021.11.24 Speaker, "BEAM Plus Materials and Waste Aspects", HKU MSc (Environmental Management) Green Buildings and Energy Management Course BEAM Affiliate Training Sessions, BEAM Society Ltd.
- 2021.11.05 Speaker, CPD webinar on "Green Neighbourhood in High-density High-rise Cities", *The International Association of Elevator Engineers.*
- 2021.10.29 Speaker, "Green Product Certification in Hong Kong", Hong Kong Green Building Council.
- 2021.10.18 Speaker, CPD seminar on "Green Neighbourhood in High-Density High-rise Cities", *Hong Kong Institute of Surveyors.*
- 2021.08.18 Speaker, "BIM Journey on Green Architectural Practice", Construction Innovation & Technology Fund, Construction Industry Council.
- 2021.07.12 Speaker, "Life and Career Planning in Green Architecture", Kwun Tong Maryknoll College.

#### **Conducting Community Engagement Workshops**

- 2021.11.27 "Green Architectural Practice" company tour and design workshop for university students, *CityProg's OpenHouse!HK, Hong Kong Design Centre.*
- 2021.10.16 "Green Living: Architecture & Community Facilities" workshop for Kwai Tsing residents and students, *MWYO*.
- 2021.09.20 "Improvement of Tsuen Wan Rivera Park Children Playground" Five children's playground co-creation workshops involved over one hundred and twenty kids aged from 1.5 to 13, *ArchSD & LCSD*.
- 2021.09.11 "Co-work. Co-share" low-carbon cooking workshop and sharing, Oil Street Art Space.

#### Media Interviewed, Featured and Reported

- 2022.05.31 《U秀潮流站-環保家居設計》 < RTHK AM621>
- 2022.03.03 《鏗鏘集-節能慳電》 <RTHK31>
- 2021.08.23 Interview by "Archtraveler" Ar. Simon Hui to talk about TiP green architectural journey. (English version: <u>https://lnkd.in/gXVF7BEz</u> and Chinese version: <u>https://lnkd.in/gFAWqD88</u>)
- 2021.08.17 《可持續發展才是硬道理-綠色建築是什麼?》 <RTHK CIBS>



## **GRI** Content Index

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