



SIGMAH

SOCIAL + GREEN BENEFITS CALCULATOR

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- The purpose of SIGMAH.
- Where does the evidence come from?
- What does it look like?
- HAFF as an example.

Tenant and development characteristics

SPECIALISED TENANT SERVICES (CHOICE-BASED CHARACTERISTICS)

	Affordable	Social	Wrap-around homelessness service	Select
Homeless: long-term (12+ months), rough sleep	0	0	Wrap-around provided homeless (long-term)	No
Homeless: other	0	0	Wrap-around provided homeless (other)	No
Homeless: long-term (12+ months), rough sleep (dis.)	0	0		
Homeless: other (disability)	0	0		
Homeless: presenting with Domestic Violence	0	0	Properties for people with disability	Number
Allocations to individuals exiting prison	0	0	In good condition for people with disability	0

DEVELOPMENT DESIGN (PROBABILISTIC-BASED CHARACTERISTICS)

Affordable housing

Houses/semi-detached/townhouses	Number of dwellings	Average size (sqm)	One parent allocations
1-bed	0	50	0
2-bed	0	75	0
3-bed	0	85	0
4-bed	0	95	0
5-bed	0	105	0

Energy ratings affordable house/semi-detached/townhouses

NatHERS	7
Energy Star Rating (Cooling)	
Energy Star Rating (Heating)	

Affordable housing

Apartment style	Number of dwellings	Average size (sqm)	Balcony, patio or garden	One parent allocations
Studio	0	35	0	0
1-bed	0	50	0	0
2-bed	0	75	0	0
3-bed	0	85	0	0
4-bed	0	95	0	0

Energy ratings affordable apartment style

NatHERS	7
Energy Star Rating (Cooling)	
Energy Star Rating (Heating)	

Market environment

MARKET DETAILS

User providing rental data?

Using own rental information
Is rental data based on market

Yes
No

Representative market

State
Significant Urban Area

Vic
Bendigo

Time value of money

Discount rate
Consumer price inflation

5%
2.5%

First year of operation

Base year of calculation

2023

Affordability rent discount

% of market rent

74.99%

Analysis can be done in real and nominal value, & calculated to their net present value.

RENTAL INFORMATION

Representative market rents

Detached/semi-detached/townhouses

	User	Calculator
1-bed	\$300	\$300
2-bed	\$360	\$360
3-bed	\$450	\$450
4-bed	\$520	\$520
5-bed	\$650	\$650

Apartment style flats

	User	Calculator
Studio	\$0	\$0
1-bed	\$0	\$0
2-bed	\$0	\$0
3-bed	\$0	\$0
4-bed	\$0	\$0

Market rents are best set by the user, but SIGMAH also provides lower quartile rental values for a different jurisdictions.

Landscaping and green infrastructure

ENVIRONMENTAL & LOCAL AMENITY DETAILS

PRE-DEVELOPMENT GREEN LANDSCAPING CHARACTERISTICS

	Sqm
Green space - open and canopied (total sqm)	0
---Canopy covered green space, sqm	0

POST-DEVELOPMENT LANDSCAPE

Type of landscaping

Green space (small) - open and canopied (300m2 to 1,499m2)	
--- Canopy coverage of small green spaces, sqm	
Green space (medium) - open and canopied (1,500m2 to 4,999m2)	
--- Canopy coverage of medium green spaces, sqm	
Green space (large) - open and canopied (5,000m2 to 50,000m2)	
--- Canopy coverage of large green spaces, sqm	
Canopy provided along walkways and open spaces (excluding small, medium & large green space), sqm	
Other open green space such as flower beds or grassed areas (not canopied), sqm	
Extensive green roofs	

Average size

(sqm)	Number
0	0
0 Ok	
0	0
0 Ok	
0	0
0 Ok	
0	
0	
0	0

SIGMAH calculates net improvements in environmental benefits: health, heat and CO2 sequestration.

Access to neighbourhood amenities for wellbeing

ACCESS TO TRANSPORTATION OPTIONS

Houses/semi-detached/townhouses

Number of houses with access to train, tram or light rail within 800 meters

Number

0

Apartment style properties

Number of apartment-style properties with access to active transport options within 400 meters

Number of apartment-style properties with access to train, tram or light rail within 800 meters

Number

0

0

ACCESS TO GREEN LANDSCAPING OPTIONS

Houses/semi-detached/townhouses

Number of houses with access to large park within within 400 meters (5 min walk)

Number

0

Apartment style properties

Number of apartments with access to medium size park within within 200 meters (2-3 min walk)

Number of apartments with access to large size park within within 400 meters (5 min walk)

Number

0

0

All properties combined

Approximate number of people within 1-400 meters of green space

0

Wellbeing and health benefits depend on proximity, location and type.

Green to run and/or green to build?



Note: all embodied carbon data in this calculator is sourced from:

ENVIRONMENTAL PERFORMANCE IN CONSTRUCTION (EPiC)

Crawford, R.H., Stephan, A. and Prideaux, F. (2019)

Environmental Performance in Construction (EPiC) Database,

The University of Melbourne, Melbourne.

CONCRETE AND PLASTER PRODUCTS

Blocks	Unit of measurement	Input	Cement	Unit of measurement	Input
Concrete block	Select material Col C		Portland cement	kg	
Concrete block - 390 × 190 × 90 mm	Select material Col C			Select material Col G	
Concrete block - 390 × 190 × 140 mm	Select material Col C				
Concrete block - 390 × 190 × 190 mm	Select material Col C				

Fibre cement	Unit of measurement	Input	Plaster & tiles	Unit of measurement	Input
	Select material Col C			Select material Col G	
	Select material Col C			Select material Col G	
	Select material Col C			Select material Col G	

For NfP users SIGMAH also comes with EPiC. Allowing estimation of embodied energy, water and carbon in new buildings.

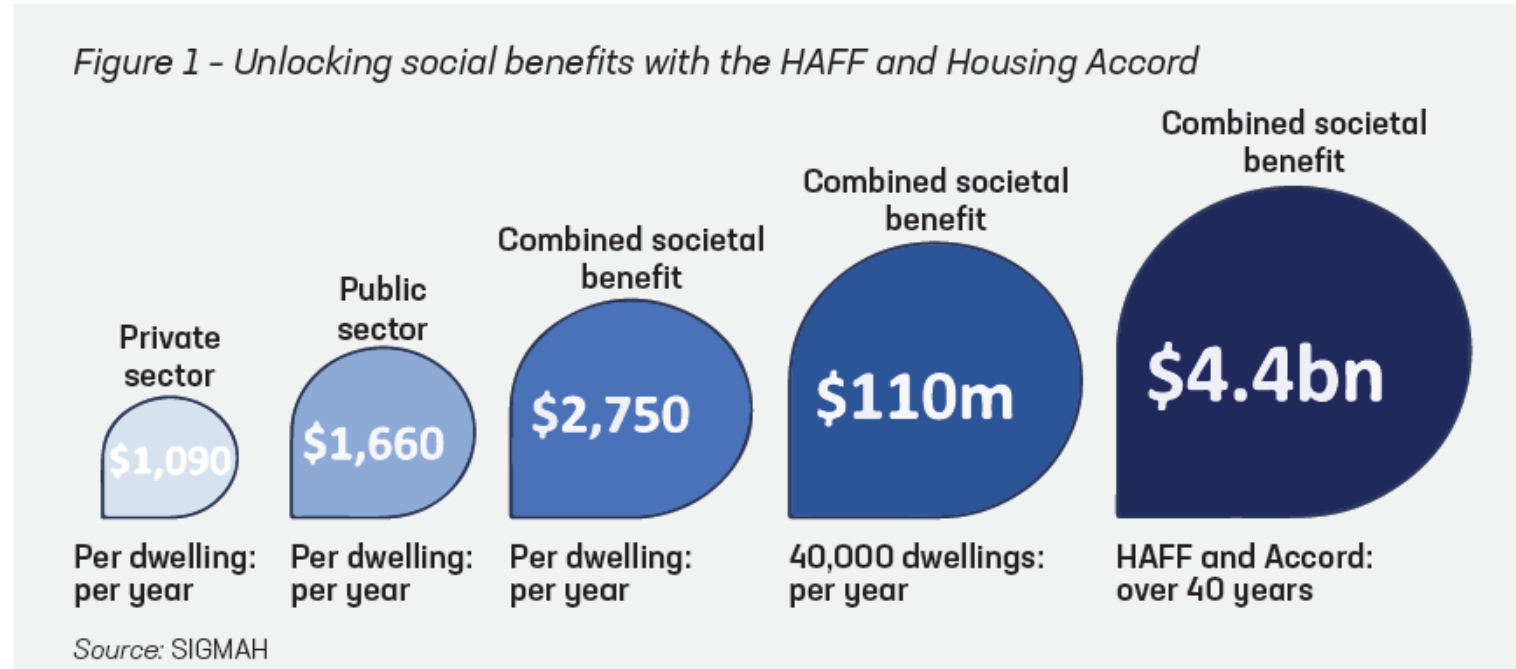
SIGMAH produces summary measures of time to carbon neutrality and time to social cost of CO2 neutrality

40 affordable rents & 40 social rents



- Social rent houses 5 long-term/complex homelessness; 10 other homelessness; 5 DV and 2 exiting prison.

Wider social and economic benefits from HAFF and Housing Accord



- Over and beyond any construction related benefits, housing employment or asset appreciation.

Cost-of-Living relief for tenants from HAFF and Housing Accord

Is the annual Cost-of-Living relief resulting from social or affordable rent setting, and lower energy expenditure - each year.



Per dwelling: per year

Is the combined Cost-of-Living relief resulting from social or affordable rent setting, and lower energy expenditure - over 4 decades.



HAFF and Accord: over 40 years

- Compared to equivalent private sector rental.

Accessing SIGMAH – please scan:



LINK TO CHIA-SIGMAH WEBSITE



LINK TO SIGMAH-HAFF ILLUSTRATION