



## 2017 Deloitte Renewable Energy Seminar

Innovating for tomorrow

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Deloitte Center *for*  
Energy Solutions



Advanced  
HLBV  
modeling

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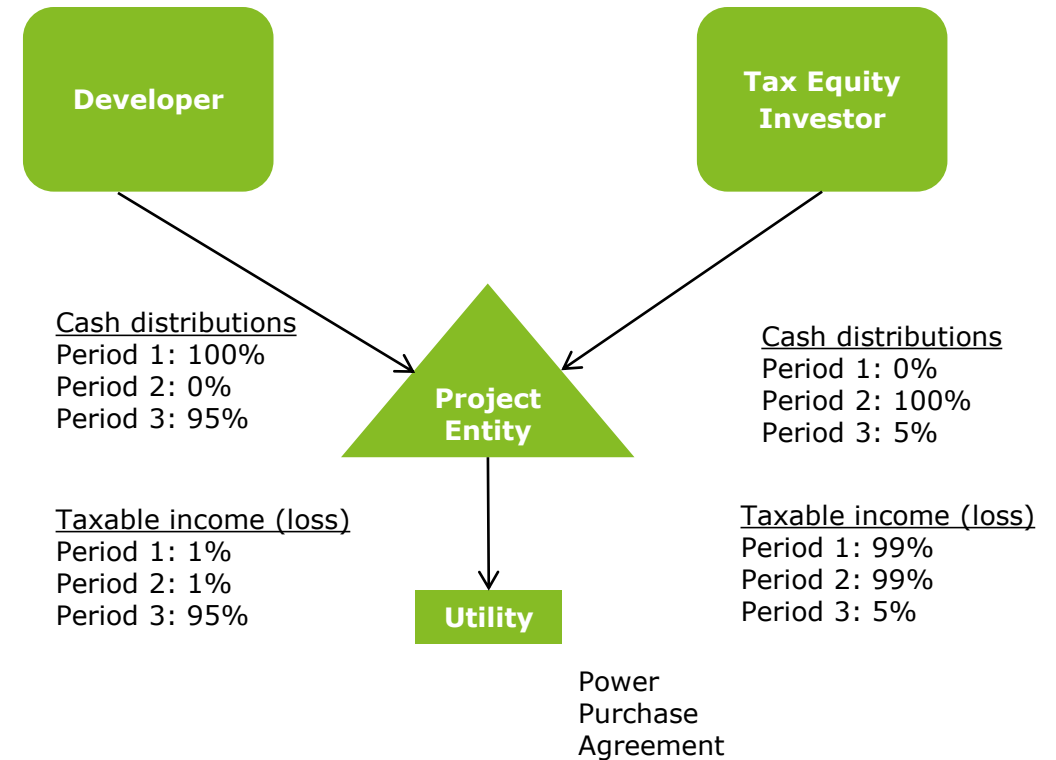
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# HLBV concepts & accounting theory

# HLBV concepts & accounting theory

A partnership flip structure is a financing structure where

- Project Entity is structured as an LLC, and thus is a flow-thru entity for tax purposes
- Developer and managing member of the partnership,
- Tax Equity Investor
  - The Tax Equity Investor is an entity that can use certain of the tax benefits associated with the renewable project
  - Investor initially is allocated as much as 99% of tax items and subsequently "flips" down to an insignificant amount after achieving a specified after-tax IRR
- Developer
  - Typically the operator and managing member of the partnership
  - Repurchase option post flip date
  - ROI earned largely through PPA cash flows
- Tax Equity Investor
  - Sufficient taxable income to monetize tax benefits
  - ROE earned through allocation of tax benefits and then minor "post-flip" cash flows



# HLBV concepts & accounting theory

- HLBV is a balance sheet-oriented approach to the equity method of accounting which provides a methodology for allocating pre-tax GAAP income or loss to an investor
- HLBV calculates the amount each partner would receive if the partnership were liquidated at book value at the end of each measurement period. The change in the allocated amount to each partner during the period is book income/loss allocated to that partner (adjusted for distributions and contributions)
- Generally, the HLBV Method is not considered appropriate where the conventional equity method can be applied
- When an investor receives allocations of income/loss that are disproportionate to its equity interest in the investee (such as that found in partnership flip structures), it may not be appropriate to record equity method income/loss on the basis of the percentage of equity interest owned.
- Challenges to conventional application of equity method for partnership flip structures :
  - Investee's capital structure provides different rights and priorities to its owners or ownership percentages are not specified (or varies over the life of the investment)

In order to determine the amount allocated to each partner, an analysis of the partners' capital accounts (as adjusted per the liquidation provisions of the partnership agreement) must be performed

# HLBV case study

# HLBV case study – 20MW Solar project

- 20MW Solar Project
- Annual Production – 32,000MWh, 0.50% Annual Degradation
- Project FMV - \$35,000,000 (\$1.75 / watt-dc)
- Investment Tax Credit - \$10,500,000 (assume that 100% of Project FMV is ITC-eligible for this example)
- PPA - \$75.00 / MWh, escalating 1.00% / year for 20 years
- Operating Expenses – approx. 20% of revenues
- Tax Equity Contribution - \$15.5 million
- Sponsor Equity Contribution \$19.5 million
- Tax Equity Target IRR – 8.00% After-Tax IRR

# HLBV case study – Steps for calculating HLBV

1. Calculate partnership's Earnings Before Taxes (EBT)
2. Calculate net (GAAP) assets of the partnership – several approaches:
  - a. Entire balance sheet
  - b. Assets (PP&E) only
  - c. Equity only
3. Calculate net (Tax) assets of the partnership – several approaches:
  - a. Assets (PP&E) only
  - b. 704(b) Capital Accounts
4. Calculate tax gain or loss on hypothetical liquidation of the partnership
5. Allocate tax gain in accordance with liquidation provisions in partnership agreement.
  - a. Allocate gain to partners with negative 704(b) capital account
  - b. Allocate gain to tax equity investor until their Target IRR is achieved
  - c. Allocate remaining gain in accordance with post-flip allocation ratios
6. Calculate partners' claims on book value (Ending 704(b) capital account plus allocations of hypothetical tax gain from liquidation waterfall)
7. Determine change in each partner's claim on partnership book value during the period (adjusted for contributions and distributions)

For purposes of this case study, we assume a generic set of liquidation provisions in computing HLBV. In practice, there is tremendous diversity in liquidation provisions from deal to deal, as partners develop provisions which better reflect their economic arrangement.



# HLBV case study – Step 0 – Calculate partnership EBT

		31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
<b>Production</b>						
Annual Output - First Year	\$'000	32,000	32,000	32,000	32,000	32,000
Production Factor	\$'000	75.0%	100.0%	100.0%	100.0%	100.0%
<b>Annual Output</b>	<b>\$'000</b>	<b>24,000</b>	<b>31,840</b>	<b>31,681</b>	<b>31,522</b>	<b>31,365</b>
<b>Revenues</b>						
PPA Production		24,000	31,840	31,681	31,522	31,365
PPA Escalator		0.0%	1.0%	2.0%	3.0%	4.1%
PPA Price		75.00	75.75	76.51	77.27	78.05
<b>PPA Revenues</b>	<b>\$'000 \$</b>	<b>1,800 \$</b>	<b>2,412 \$</b>	<b>2,424 \$</b>	<b>2,436 \$</b>	<b>2,448</b>
<b>Operating Expenses</b>						
Operating Expenses (20% of Revenue)	\$'000	(360)	(482)	(485)	(487)	(490)
<b>EBITDA</b>	<b>\$'000 \$</b>	<b>1,440 \$</b>	<b>1,930 \$</b>	<b>1,939 \$</b>	<b>1,949 \$</b>	<b>1,958</b>
Depreciation & Amortization	\$'000	(750)	(1,000)	(1,000)	(1,000)	(1,000)
<b>EBIT</b>	<b>\$'000 \$</b>	<b>690 \$</b>	<b>930 \$</b>	<b>939 \$</b>	<b>949 \$</b>	<b>958</b>

HLBV is utilized to compute allocations of EBT to each of the partners. Tax provision calculations are performed at the partner level.

## HLBV case study – Step 1 – Calculate net (GAAP) assets of the partnership

Calculate GAAP Book Value		31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
Beginning Balance	\$'000	-	34,250	33,250	32,250	31,250
Add: Capital Contributions	\$'000	35,000	-	-	-	-
Less: Cash Distributions	\$'000	(1,440)	(1,930)	(1,939)	(1,949)	(1,958)
Pre-Tax GAAP Income / (Loss)	\$'000	690	930	939	949	958
<b>GAAP Equity (Liquidation Value)</b>	<b>\$'000</b>	<b>\$ 34,250</b>	<b>\$ 33,250</b>	<b>\$ 32,250</b>	<b>\$ 31,250</b>	<b>\$ 30,250</b>

This example uses GAAP equity as the measure of GAAP book value – several options exist for computing GAAP book value.

# HLBV case study – Step 2A – Calculate net (tax) assets of the partnership

704(b) capital account – Tax Investor		Contribution 1	Contribution 2	COD					
		14-Feb-17	26-Mar-17	31-Mar-17	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
Opening Balance	\$'000	-	3,100	15,500	15,500	5,478	(2,519)	(5,532)	(6,200)
Basis adjustment for ITC tax credits	\$'000	-	-	-	(5,198)	-	-	-	-
Increase for 704(b) net income	\$'000	-	-	-	-	-	-	-	-
Decrease for 704(b) net loss	\$'000	-	-	-	(4,465)	(7,515)	(2,528)	(991)	(984)
Increase for contributions	\$'000	3,100	12,400	-	-	-	-	-	-
Decrease for distributions	\$'000	-	-	-	(360)	(482)	(485)	(487)	(490)
734 basis adjustment	\$'000	-	-	-	-	-	-	325	326
734 depreciation expenses	\$'000	-	-	-	-	-	-	(22)	(43)
<b>Preliminary 704(b) account</b>	<b>\$'000</b>	<b>3,100</b>	<b>15,500</b>	<b>15,500</b>	<b>5,478</b>	<b>(2,519)</b>	<b>(5,532)</b>	<b>(6,707)</b>	<b>(7,391)</b>
Add: DRO	\$'000	-	-	-	-	2,519	5,532	6,200	6,200
Add: Minimum gain addback under Treas. Reg. § 1.704-2(h)(5)	\$'000	-	-	-	-	-	-	-	-
<b>Preliminary adjusted 704(b) account</b>	<b>\$'000</b>	<b>3,100</b>	<b>15,500</b>	<b>15,500</b>	<b>5,478</b>	<b>-</b>	<b>-</b>	<b>(507)</b>	<b>(1,191)</b>
Reallocation to Sponsor	\$'000	-	-	-	-	-	-	507	984
Reallocation from Sponsor	\$'000	-	-	-	-	-	-	-	-
<b>Ending adjusted 704(b) account</b>	<b>\$'000</b>	<b>3,100</b>	<b>15,500</b>	<b>15,500</b>	<b>5,478</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(207)</b>
Less: DRO	\$'000	-	-	-	-	(2,519)	(5,532)	(6,200)	(6,200)
Less: Minimum gain addback under Treas. Reg. § 1.704-2(h)(5)	\$'000	-	-	-	-	-	-	-	-
<b>Ending 704(b) account</b>	<b>\$'000</b>	<b>3,100</b>	<b>15,500</b>	<b>15,500</b>	<b>5,478</b>	<b>(2,519)</b>	<b>(5,532)</b>	<b>(6,200)</b>	<b>(6,407)</b>

# HLBV case study – Step 2A – Calculate net (tax) assets of the partnership

Outside Basis – Tax Investor		Contribution 1		Contribution 2		COD			
		14-Feb-17	26-Mar-17	31-Mar-17	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
Beginning Outside Basis	\$'000	-	3,100	15,500	15,500	5,478	-	-	-
Add: Capital Contributions	\$'000	3,100	12,400	-	-	-	-	-	-
Add: Taxable Income	\$'000	-	-	-	-	-	-	-	-
Add / Less: Increase / (Decrease) in Partner's Share of Liabilities	\$'000	-	-	-	-	-	-	-	-
Less: ITC Adjustment	\$'000	-	-	-	(5,198)	-	-	-	-
<b>Tax investor Outside Basis Before Cash Distributions</b>	<b>\$'000</b>	<b>3,100</b>	<b>15,500</b>	<b>15,500</b>	<b>10,303</b>	<b>5,478</b>	-	-	-
Less: Cash Distributions	\$'000	-	-	-	(360)	(482)	(485)	(487)	(490)
<b>Tax investor Outside Basis After Cash Distributions</b>	<b>\$'000</b>	<b>3,100</b>	<b>15,500</b>	<b>15,500</b>	<b>9,943</b>	<b>4,995</b>	<b>(485)</b>	<b>(487)</b>	<b>(490)</b>
Add: Distributions in Excess of Outside Basis	\$'000	-	-	-	-	-	485	487	490
<b>Tax investor Outside Basis Before Allocations of Loss</b>	<b>\$'000</b>	<b>3,100</b>	<b>15,500</b>	<b>15,500</b>	<b>9,943</b>	<b>4,995</b>	-	-	-
Less: Taxable Loss	\$'000	-	-	-	(4,465)	(7,515)	(2,528)	(504)	(42)
<b>Tax investor Outside Basis Before Suspended Losses</b>	<b>\$'000</b>	<b>3,100</b>	<b>15,500</b>	<b>15,500</b>	<b>5,478</b>	<b>(2,519)</b>	<b>(2,528)</b>	<b>(504)</b>	<b>(42)</b>
Add: Suspended Losses	\$'000	-	-	-	-	2,519	2,528	504	42
Less: Suspended Losses Utilized	\$'000	-	-	-	-	-	-	-	-
<b>Ending Balance</b>	<b>\$'000</b>	<b>3,100</b>	<b>15,500</b>	<b>15,500</b>	<b>5,478</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

# HLBV case study – Step 2A – Calculate net (tax) assets of the partnership

704(b) capital account – Sponsor		Contribution 1	Contribution 2	COD					
		14-Feb-17	26-Mar-17	31-Mar-17	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
Opening Balance	\$'000	-	19,500	19,500	19,500	18,322	16,799	14,100	11,793
Basis adjustment for ITC tax credits	\$'000	-	-	-	(53)	-	-	-	-
Increase for 704(b) net income	\$'000	-	-	-	-	-	-	-	-
Decrease for 704(b) net loss	\$'000	-	-	-	(45)	(76)	(1,245)	(488)	(485)
Increase for contributions	\$'000	19,500	-	-	-	-	-	-	-
Decrease for distributions	\$'000	-	-	-	(1,080)	(1,447)	(1,454)	(1,461)	(1,469)
734 basis adjustment	\$'000	-	-	-	-	-	-	160	161
734 depreciation expenses	\$'000	-	-	-	-	-	-	(11)	(21)
<b>Preliminary 704(b) account</b>	<b>\$'000</b>	<b>19,500</b>	<b>19,500</b>	<b>19,500</b>	<b>18,322</b>	<b>16,799</b>	<b>14,100</b>	<b>12,300</b>	<b>9,979</b>
Add: DRO	\$'000	-	-	-	-	-	-	-	-
Add: Minimum gain addback under Treas. Reg. § 1.704-2(h)(5)	\$'000	-	-	-	-	-	-	-	-
<b>Preliminary adjusted 704(b) account</b>	<b>\$'000</b>	<b>19,500</b>	<b>19,500</b>	<b>19,500</b>	<b>18,322</b>	<b>16,799</b>	<b>14,100</b>	<b>12,300</b>	<b>9,979</b>
Reallocation to Sponsor	\$'000	-	-	-	-	-	-	-	-
Reallocation from Sponsor	\$'000	-	-	-	-	-	-	(507)	(984)
<b>Ending adjusted 704(b) account</b>	<b>\$'000</b>	<b>19,500</b>	<b>19,500</b>	<b>19,500</b>	<b>18,322</b>	<b>16,799</b>	<b>14,100</b>	<b>11,793</b>	<b>8,995</b>
Less: DRO	\$'000	-	-	-	-	-	-	-	-
Less: Minimum gain addback under Treas. Reg. § 1.704-2(h)(5)	\$'000	-	-	-	-	-	-	-	-
<b>Ending 704(b) account</b>	<b>\$'000</b>	<b>19,500</b>	<b>19,500</b>	<b>19,500</b>	<b>18,322</b>	<b>16,799</b>	<b>14,100</b>	<b>11,793</b>	<b>8,995</b>

# HLBV case study – Step 2A – Calculate net (tax) assets of the partnership

Outside Basis – Sponsor		Contribution 1	Contribution 2	COD					
		14-Feb-17	26-Mar-17	31-Mar-17	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
Beginning Outside Basis	\$'000	-	19,500	19,500	19,500	18,322	16,799	14,100	11,634
Add: Capital Contributions	\$'000	19,500	-	-	-	-	-	-	-
Add / Less: 743 Adjustment	\$'000	-	-	-	-	-	-	-	-
Add: Taxable Income	\$'000	-	-	-	-	-	-	-	-
Add / Less: 743 Amortization	\$'000	-	-	-	-	-	-	-	-
Add / Less: Increase / (Decrease) in Partner's Share of Liabilities	\$'000	-	-	-	-	-	-	-	-
Less: ITC Adjustment	\$'000	-	-	-	(53)	-	-	-	-
Add: ITC Adjustment Recapture	\$'000	-	-	-	-	-	-	-	-
<b>Tax investor Outside Basis Before Cash Distributions</b>	<b>\$'000</b>	<b>19,500</b>	<b>19,500</b>	<b>19,500</b>	<b>19,448</b>	<b>18,322</b>	<b>16,799</b>	<b>14,100</b>	<b>11,634</b>
Less: Cash Distributions	\$'000	-	-	-	(1,080)	(1,447)	(1,454)	(1,461)	(1,469)
<b>Tax investor Outside Basis After Cash Distributions</b>	<b>\$'000</b>	<b>19,500</b>	<b>19,500</b>	<b>19,500</b>	<b>18,368</b>	<b>16,875</b>	<b>15,345</b>	<b>12,639</b>	<b>10,165</b>
Add: Distributions in Excess of Outside Basis	\$'000	-	-	-	-	-	-	-	-
<b>Tax investor Outside Basis Before Allocations of Loss</b>	<b>\$'000</b>	<b>19,500</b>	<b>19,500</b>	<b>19,500</b>	<b>18,368</b>	<b>16,875</b>	<b>15,345</b>	<b>12,639</b>	<b>10,165</b>
Less: Taxable Loss	\$'000	-	-	-	(45)	(76)	(1,245)	(1,004)	(1,489)
<b>Tax investor Outside Basis Before Suspended Losses</b>	<b>\$'000</b>	<b>19,500</b>	<b>19,500</b>	<b>19,500</b>	<b>18,322</b>	<b>16,799</b>	<b>14,100</b>	<b>11,634</b>	<b>8,676</b>
Add: Suspended Losses	\$'000	-	-	-	-	-	-	-	-
Less: Suspended Losses Utilized	\$'000	-	-	-	-	-	-	-	-
<b>Ending Balance</b>	<b>\$'000</b>	<b>19,500</b>	<b>19,500</b>	<b>19,500</b>	<b>18,322</b>	<b>16,799</b>	<b>14,100</b>	<b>11,634</b>	<b>8,676</b>

## HLBV case study – Step 2B – Calculate tax gain or loss on hypothetical liquidation of the partnership

Calculate Hypothetical Gain on Liquidation		31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
GAAP basis- book value	\$'000	34,250	33,250	32,250	31,250	30,250
Tax Investor tax basis- 704 (b) book	\$'000	5,478	(2,519)	(5,532)	(6,200)	(6,407)
Sponsor tax basis- 704 (b) book	\$'000	18,322	16,799	14,100	11,793	8,995
<b>Total tax basis - 704 (b) book</b>	<b>\$'000</b>	<b>23,800</b>	<b>14,280</b>	<b>8,568</b>	<b>5,593</b>	<b>2,588</b>
<b>Hypothetical Gain on Liquidation</b>	<b>\$'000</b>	<b>10,450</b>	<b>18,970</b>	<b>23,682</b>	<b>25,657</b>	<b>27,662</b>

## HLBV case study – Step 3 – Allocate gain to partners with negative 704(b) capital account

<b>Allocate Gain to Restore Negative Capital Account</b>		<b>31-Dec-17</b>	<b>31-Dec-18</b>	<b>31-Dec-19</b>	<b>31-Dec-20</b>	<b>31-Dec-21</b>
Hypothetical gain / (loss) on liquidation before Step 3	\$'000	10,450	18,970	23,682	25,657	27,662
Deficit accounts						
Tax Investor	\$'000	-	(2,519)	(5,532)	(6,200)	(6,407)
Sponsor	\$'000	-	-	-	-	-
<b>Total</b>	<b>\$'000</b>	<b>-</b>	<b>(2,519)</b>	<b>(5,532)</b>	<b>(6,200)</b>	<b>(6,407)</b>
Allocations	\$'000					
Tax Investor	\$'000	-	2,519	5,532	6,200	6,407
Sponsor	\$'000	-	-	-	-	-
<b>Total</b>	<b>\$'000</b>	<b>-</b>	<b>2,519</b>	<b>5,532</b>	<b>6,200</b>	<b>6,407</b>
<b>Gain / (Loss) Remaining After Step 3</b>	<b>\$'000</b>	<b>10,450</b>	<b>16,451</b>	<b>18,150</b>	<b>19,457</b>	<b>21,255</b>
704 (b) accounts after step 3	\$'000					
Tax Investor	\$'000	5,478	-	-	-	-
Sponsor	\$'000	18,322	16,799	14,100	11,793	8,995
<b>Total</b>	<b>\$'000</b>	<b>23,800</b>	<b>16,799</b>	<b>14,100</b>	<b>11,793</b>	<b>8,995</b>



# HLBV case study – Step 4 – Allocate gain to tax equity investor until their Target IRR is achieved

Calculate cash required to achieve IRR		31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
Tax equity effective tax rate	35.0% \$'000	35.0%	35.0%	35.0%	35.0%	35.0%
Periodic rate of return	8.0% %	8.0%	8.0%	8.0%	8.0%	8.0%
Cash required						
Opening balance	\$'000	-	3,767	1,771	1,588	1,390
Contributions	\$'000	15,500	-	-	-	-
Net returns	\$'000	(12,318)	(2,231)	(315)	(317)	(318)
Differential to reach required IRR	\$'000	584	235	132	118	102
<b>Closing balance - after tax cash required to reach target IRR</b>	<b>\$'000</b>	<b>3,767</b>	<b>1,771</b>	<b>1,588</b>	<b>1,390</b>	<b>1,173</b>

# HLBV case study – Step 4 – Allocate gain to tax equity investor until their Target IRR is achieved

Allocate Gain to Tax Investor to Achieve Target After Tax IRR		31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
Remaining gain before Step 4	\$'000	10,450	16,451	18,150	19,457	21,255
After tax cash required to reach target IRR (from prior slide)	\$'000	3,767	1,771	1,588	1,390	1,173
Add tax impact of gain to restore deficit	\$'000	-	882	1,936	2,170	2,242
Less positive capital account payment upon liquidation	\$'000	5,478	-	-	-	-
Gain required to restore contribution- after tax	\$'000	-	2,653	3,525	3,560	3,416
Gain required to restore contribution- before tax	35.0% \$'000	-	4,081	5,422	5,477	5,255
<b>Gain allocated</b>	<b>\$'000</b>	<b>-</b>	<b>4,081</b>	<b>5,422</b>	<b>5,477</b>	<b>5,255</b>
<b>Remaining hypothetical gain / (loss) on liquidation</b>	<b>\$'000</b>	<b>10,450</b>	<b>12,369</b>	<b>12,728</b>	<b>13,980</b>	<b>16,000</b>
704 (b) accounts after step 4						
Tax Investor		5,478	4,081	5,422	5,477	5,255
Sponsor		18,322	16,799	14,100	11,793	8,995
<b>Total 704 (b) accounts</b>		<b>23,800</b>	<b>20,881</b>	<b>19,522</b>	<b>17,270</b>	<b>14,250</b>

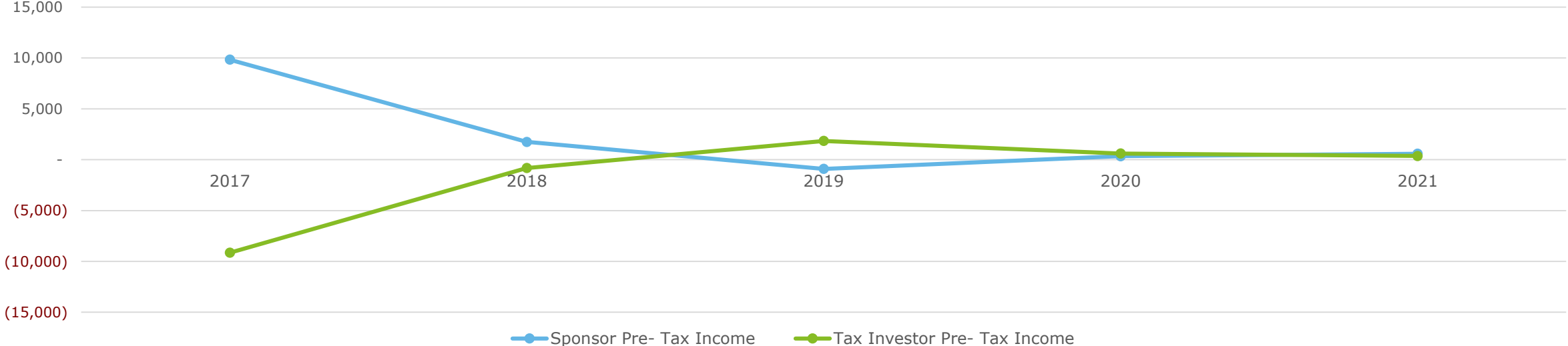


# HLBV case study – Step 6 and 7 – Calculate partners' claims on book value and calculate HLBV book income (change in claims on book value)

<b>Claim on Book Value / HLBV Income Calculation</b>		<b>31-Dec-17</b>	<b>31-Dec-18</b>	<b>31-Dec-19</b>	<b>31-Dec-20</b>	<b>31-Dec-21</b>
<b>Tax Investor</b>						
Tax Investor Claim on Partnership Book Value						
Claim on Partnership Book Value - Beginning	\$ '000	-	6,000	4,700	6,059	6,176
Claim on Partnership Book Value - Ending	\$ '000	6,000	4,700	6,059	6,176	6,055
<b>Change in Tax Investor Claim on Partnership Book Value</b>	\$ '000	<b>6,000</b>	<b>(1,300)</b>	<b>1,359</b>	<b>117</b>	<b>(121)</b>
Less: Capital Contributions	\$ '000	(15,500)	-	-	-	-
Add: Cash Distributions	\$ '000	360	482	485	487	490
<b>Tax Investor Pre Book Income / (Loss)</b>	\$ '000	<b>(9,140)</b>	<b>(818)</b>	<b>1,844</b>	<b>604</b>	<b>369</b>
<b>Sponsor</b>						
Sponsor Claim on Partnership Book Value						
Claim on Partnership Book Value - Beginning	\$ '000	-	28,250	28,550	26,191	25,074
Claim on Partnership Book Value - Ending	\$ '000	28,250	28,550	26,191	25,074	24,195
<b>Change in Sponsor Claim on Partnership Book Value</b>	\$ '000	<b>28,250</b>	<b>300</b>	<b>(2,359)</b>	<b>(1,117)</b>	<b>(879)</b>
Less: Capital Contributions	\$ '000	(19,500)	-	-	-	-
Add: Cash Distributions	\$ '000	1,080	1,447	1,454	1,461	1,469
<b>Sponsor Pre Book Income / (Loss)</b>	\$ '000	<b>9,830</b>	<b>1,747</b>	<b>(905)</b>	<b>345</b>	<b>590</b>

# HLBV case study – Income allocation profile

**HLBV PRE TAX INCOME PROFILES**



**HLBV Allocation Setting**

Allocate gain to restore Sponsor capital contributions	OFF
Allocate Gain to Tax Equity to Achieve Target After Tax IRR	ON
Allocate Target Liquidation Balance	OFF
Remaining gain allocation using post flip P&L ratio	ON

## HLBV case study – **Alternate scenario 1**: Step 4 – Allocate gains to Tax Investor based on a target liquidation balance

This scenario allocates gains to Tax Investor based on a target liquidation balance. Liquidation balance target is used in Step 4 instead of the IRR target allocation as per the base case.

<b>Allocate Target Liquidation Balance</b>		<b>31-Dec-17</b>	<b>31-Dec-18</b>	<b>31-Dec-19</b>	<b>31-Dec-20</b>	<b>31-Dec-21</b>
Remaining gain before Step 4	\$'000	10,450	16,451	18,150	19,457	21,255
Targeted Liquidation Balance - Tax Investor	\$'000	5,225	10,266	9,241	9,671	10,055
Remaining hypothetical gain / (loss) on liquidation	\$'000	10,450	16,451	18,150	19,457	21,255
<b>Hypothetical gain / (loss) on liquidation for target liquidation</b>	<b>\$'000</b>	<b>5,225</b>	<b>6,185</b>	<b>8,909</b>	<b>9,786</b>	<b>11,200</b>
704 (b) accounts after step 4						
Tax Investor		10,703	10,266	9,241	9,671	10,055
Sponsor		18,322	16,799	14,100	11,793	8,995
<b>Total 704 (b) accounts</b>		<b>29,025</b>	<b>27,065</b>	<b>23,341</b>	<b>21,464</b>	<b>19,050</b>

# HLBV case study – **Alternate scenario 1**: Step 5 – Allocate remaining gain in accordance with post-flip allocation ratios

This scenario allocates gains to Tax Investor based on a target liquidation balance.

Allocate remaining gain in accordance with post flip P&L ratio			31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
<b>GAAP basis- book value</b>		\$'000	<b>34,250</b>	<b>33,250</b>	<b>32,250</b>	<b>31,250</b>	<b>30,250</b>
Allocation of remaining gain							
Tax Investor	5.0%	\$'000	261	309	445	489	560
Sponsor	95.0%	\$'000	4,964	5,875	8,464	9,297	10,640
<b>Total Allocated</b>		\$'000	<b>5,225</b>	<b>6,185</b>	<b>8,909</b>	<b>9,786</b>	<b>11,200</b>
704 (b) accounts after step 5							
Tax Investor		\$'000	10,964	10,575	9,686	10,160	10,615
Sponsor		\$'000	23,286	22,675	22,564	21,090	19,635
<b>Total 704 (b) accounts</b>		\$'000	<b>34,250</b>	<b>33,250</b>	<b>32,250</b>	<b>31,250</b>	<b>30,250</b>

# HLBV case study – **Alternate scenario 1**: Step 6 and 7 – Calculate partners' claims on book value and calculate HLBV book income (change in claims on book value)

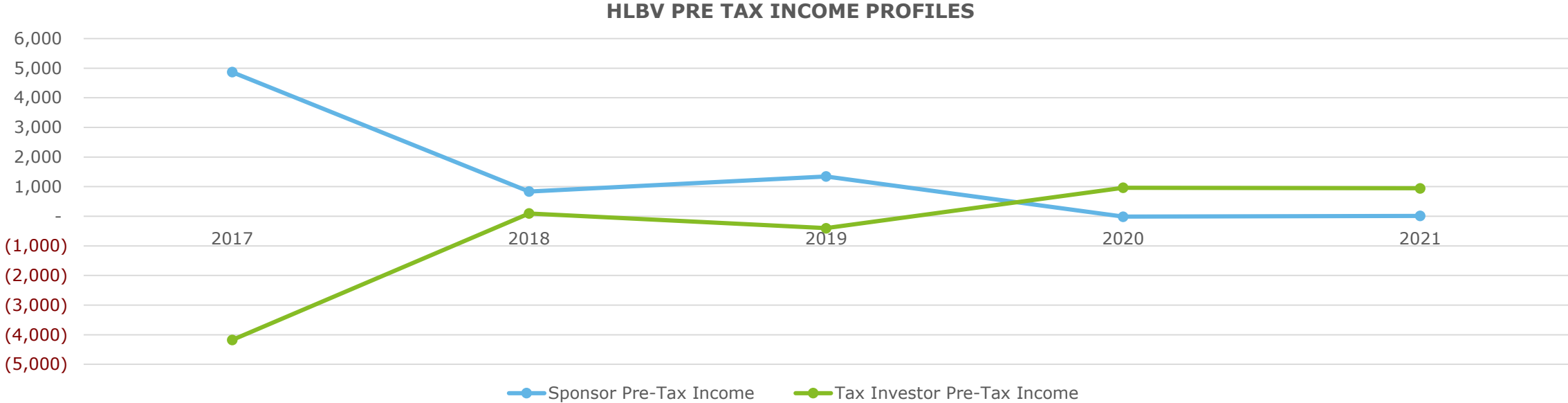
This scenario allocates gains to Tax Investor based on a target liquidation balance.

Claim on Book Value / HLBV Income Calculation		31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
<b>Tax Investor</b>						
Tax Investor Claim on Partnership Book Value						
Claim on Partnership Book Value - Beginning	\$ '000	-	10,964	10,575	9,686	10,160
Claim on Partnership Book Value - Ending	\$ '000	10,964	10,575	9,686	10,160	10,615
<b>Change in Tax Investor Claim on Partnership Book Value</b>	\$ '000	<b>10,964</b>	<b>(389)</b>	<b>(889)</b>	<b>474</b>	<b>455</b>
Less: Capital Contributions	\$ '000	(15,500)	-	-	-	-
Add: Cash Distributions	\$ '000	360	482	485	487	490
<b>Tax Investor Pre Book Income / (Loss)</b>	\$ '000	<b>(4,176)</b>	<b>94</b>	<b>(404)</b>	<b>961</b>	<b>944</b>
<b>Sponsor</b>						
Sponsor Claim on Partnership Book Value						
Claim on Partnership Book Value - Beginning	\$ '000	-	23,286	22,675	22,564	21,090
Claim on Partnership Book Value - Ending	\$ '000	23,286	22,675	22,564	21,090	19,635
<b>Change in Sponsor Claim on Partnership Book Value</b>	\$ '000	<b>23,286</b>	<b>(611)</b>	<b>(111)</b>	<b>(1,474)</b>	<b>(1,455)</b>
Less: Capital Contributions	\$ '000	(19,500)	-	-	-	-
Add: Cash Distributions	\$ '000	1,080	1,447	1,454	1,461	1,469
<b>Sponsor Pre Book Income / (Loss)</b>	\$ '000	<b>4,866</b>	<b>836</b>	<b>1,343</b>	<b>(12)</b>	<b>14</b>



# HLBV case study – **Alternate scenario 1**: Income allocation profile

This scenario allocates gains to Tax Investor based on a target liquidation balance.



**HLBV Allocation Setting**

Allocate gain to restore Sponsor capital contributions	OFF
Allocate Gain to Tax Equity to Achieve Target After Tax IRR	OFF
Allocate Target Liquidation Balance	ON
Remaining gain allocation using post flip P&L ratio	ON

## HLBV case study – **Alternate scenario 2**: Step 4 – Allocate gain to investor to return capital contributions

This scenario allocates gains to restore capital contributed by the Investor. Restore capital contribution is used in Step 4 instead of the IRR target allocation as per the base case.

<b>Allocate Gain to Investor to Return Capital Contributions</b>		<b>31-Dec-17</b>	<b>31-Dec-18</b>	<b>31-Dec-19</b>	<b>31-Dec-20</b>	<b>31-Dec-21</b>
<u>Contribution recovery balance</u>						
Opening balance	\$ '000	-	15,140	14,658	14,173	13,686
Additions	\$ '000	15,500	-	-	-	-
Distributions	\$ '000	(360)	(482)	(485)	(487)	(490)
<b>Closing balance</b>	\$ '000	<b>15,140</b>	<b>14,658</b>	<b>14,173</b>	<b>13,686</b>	<b>13,196</b>
Positive capital account payment upon liquidation	\$ '000	5,478	-	-	-	-
<b>Gain required to restore contribution</b>	\$ '000	<b>9,662</b>	<b>14,658</b>	<b>14,173</b>	<b>13,686</b>	<b>13,196</b>
<u>Remaining hypothetical gain / (loss) on liquidation</u>						
	\$ '000	788	1,793	3,977	5,771	8,059
<u>704 (b) accounts after step 4</u>						
Tax Investor	\$ '000	15,140	14,658	14,173	13,686	13,196
Sponsor	\$ '000	18,322	16,799	14,100	11,793	8,995
<b>Total</b>	<b>\$ '000</b>	<b>33,462</b>	<b>31,457</b>	<b>28,273</b>	<b>25,479</b>	<b>22,191</b>

# HLBV case study–**Alternate scenario 2**: Step 5 – Allocate remaining gain in accordance with post-flip allocation ratios

This scenario allocates gains to restore capital contributed by the Investor.

Allocate remaining gain in accordance with post flip P&L ratio			31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20	31-Dec-21
<b>GAAP basis- book value</b>		\$'000	<b>34,250</b>	<b>33,250</b>	<b>32,250</b>	<b>31,250</b>	<b>30,250</b>
Allocation of remaining gain							
Tax Investor	5.0%	\$'000	39	90	199	289	403
Sponsor	95.0%	\$'000	748	1,703	3,778	5,483	7,656
<b>Total Allocated</b>		\$'000	<b>788</b>	<b>1,793</b>	<b>3,977</b>	<b>5,771</b>	<b>8,059</b>
704 (b) accounts after step 5							
Tax Investor		\$'000	15,179	14,747	14,372	13,974	13,599
Sponsor		\$'000	19,071	18,503	17,878	17,276	16,651
<b>Total 704 (b) accounts</b>		\$'000	<b>34,250</b>	<b>33,250</b>	<b>32,250</b>	<b>31,250</b>	<b>30,250</b>

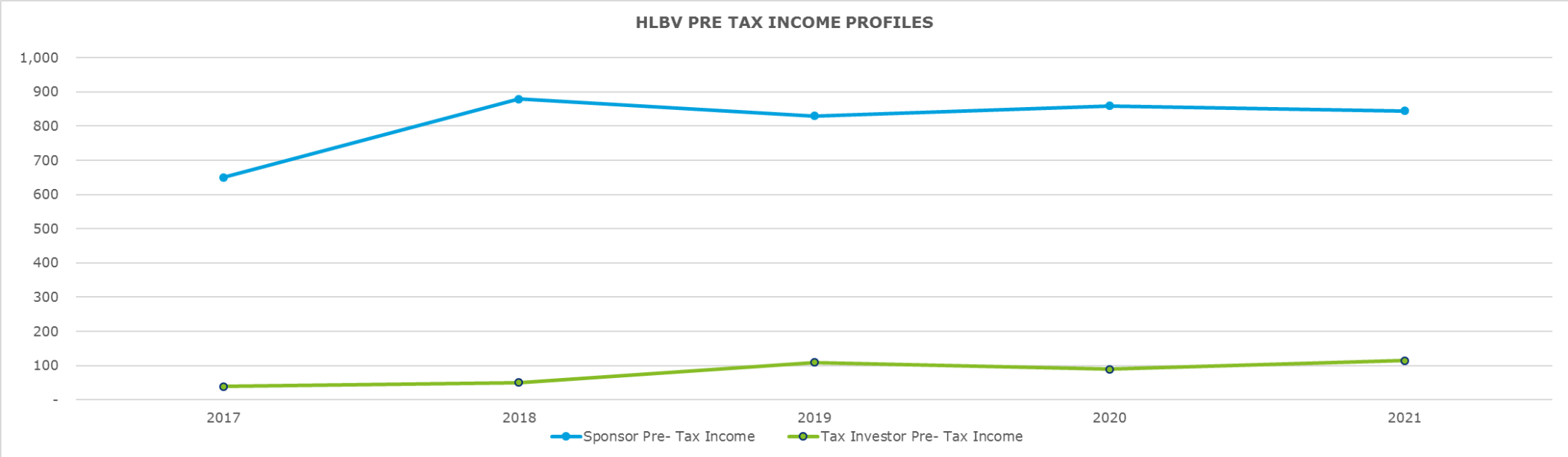
# HLBV case study – **Alternate scenario 2**: Step 6 and 7 – Calculate partners' claims on book value and calculate HLBV book income (change in claims on book value)

This scenario allocates gains to restore capital contributed by the Investor.

<b>Claim on Book Value / HLBV Income Calculation</b>		<b>31-Dec-17</b>	<b>31-Dec-18</b>	<b>31-Dec-19</b>	<b>31-Dec-20</b>	<b>31-Dec-21</b>
<b>Tax Investor</b>						
Tax Investor Claim on Partnership Book Value						
Claim on Partnership Book Value - Beginning	\$ '000	-	15,179	14,747	14,372	13,974
Claim on Partnership Book Value - Ending	\$ '000	15,179	14,747	14,372	13,974	13,599
<b>Change in Tax Investor Claim on Partnership Book Value</b>	<b>\$ '000</b>	<b>15,179</b>	<b>(432)</b>	<b>(376)</b>	<b>(397)</b>	<b>(375)</b>
Adjust for basis difference	\$ '000	-	-	-	-	-
Adjust for OCI items	\$ '000	-	-	-	-	-
Less: Capital Contributions	\$ '000	(15,500)	-	-	-	-
Add: Cash Distributions	\$ '000	360	482	485	487	490
<b>Tax Investor Pre Book Income / (Loss)</b>	<b>\$ '000</b>	<b>39</b>	<b>50</b>	<b>109</b>	<b>90</b>	<b>114</b>
<b>Sponsor</b>						
Sponsor Claim on Partnership Book Value						
Claim on Partnership Book Value - Beginning	\$ '000	-	19,071	18,503	17,878	17,276
Claim on Partnership Book Value - Ending	\$ '000	19,071	18,503	17,878	17,276	16,651
<b>Change in Sponsor Claim on Partnership Book Value</b>	<b>\$ '000</b>	<b>19,071</b>	<b>(568)</b>	<b>(624)</b>	<b>(603)</b>	<b>(625)</b>
Less: Capital Contributions	\$ '000	(19,500)	-	-	-	-
Add: Cash Distributions	\$ '000	1,080	1,447	1,454	1,461	1,469
<b>Sponsor Pre Book Income / (Loss)</b>	<b>\$ '000</b>	<b>651</b>	<b>879</b>	<b>830</b>	<b>859</b>	<b>844</b>

# HLBV case study–**Alternate scenario 2**: Income allocation profile

This scenario allocates gains to restore capital contributed by the Investor.



**HLBV Allocation Setting**

Allocate gain to restore Investor capital contributions	ON
Allocate Gain to Tax Equity to Achieve Target After Tax IRR	OFF
Allocate Target Liquidation Balance	OFF
Remaining gain allocation using post flip P&L ratio	ON



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