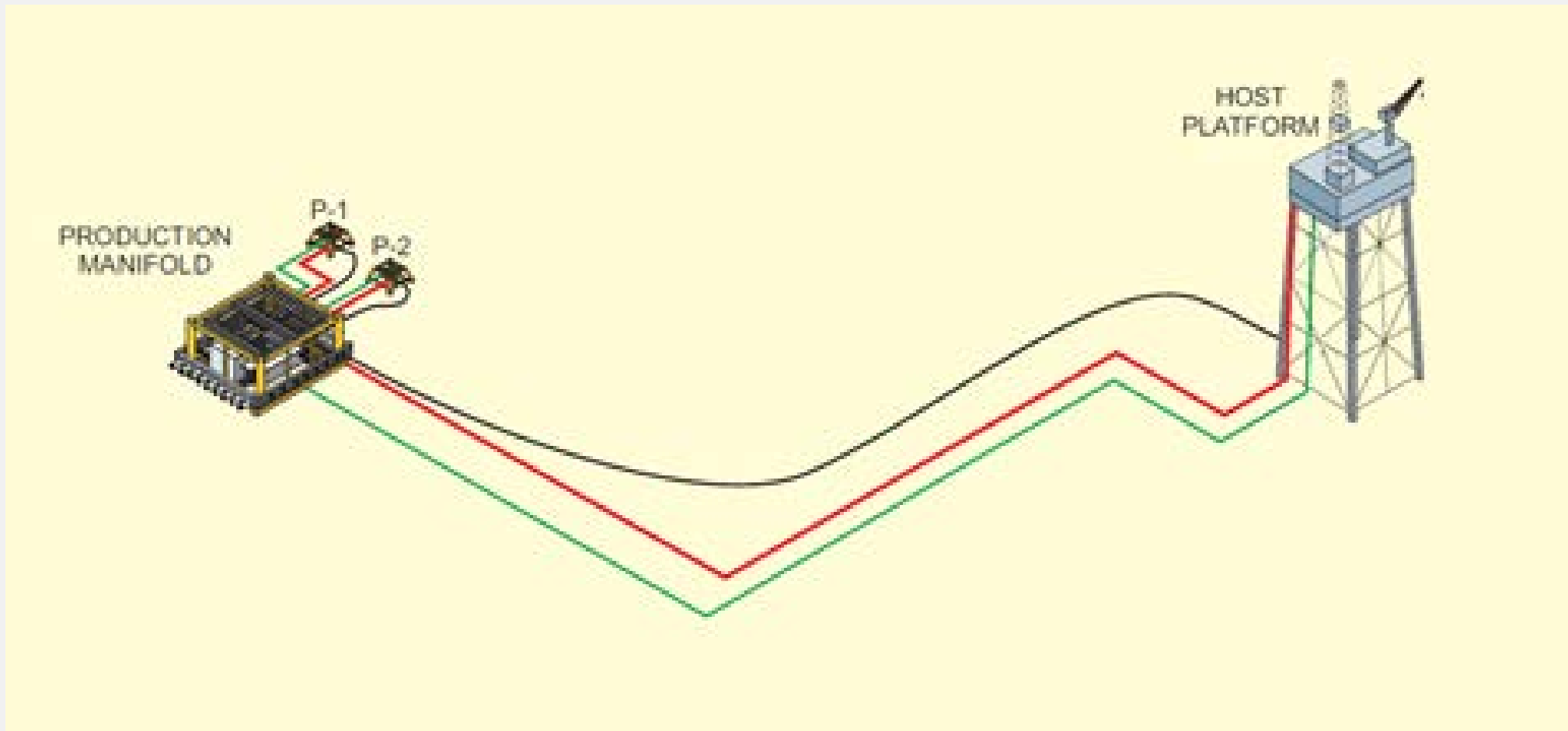
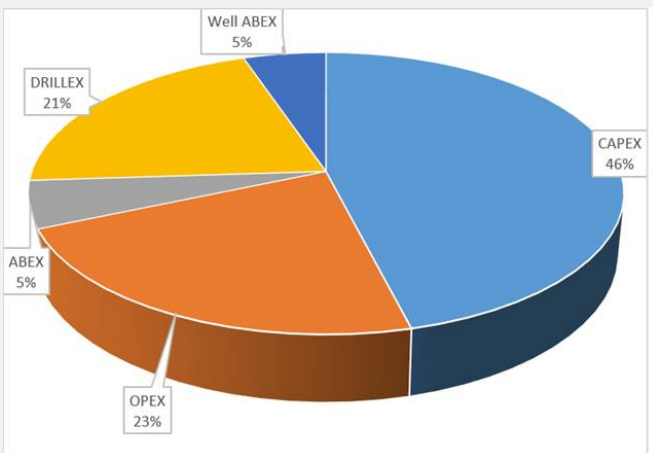


Project Schematic

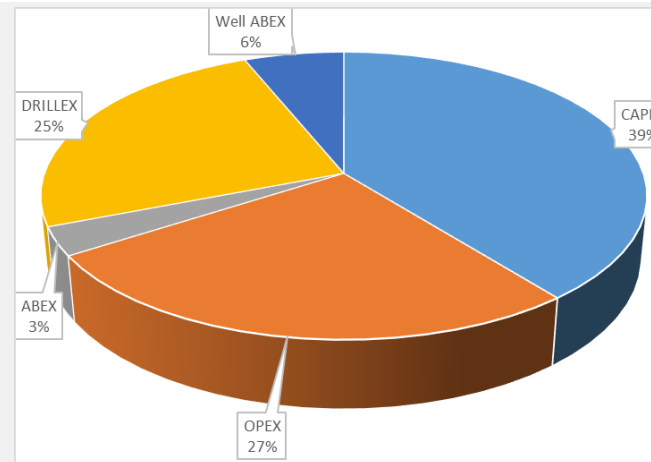


Technical Assumptions



Current TieBack

Total	211M GBP
Fac CAPEX	97M GBP
Fac OPEX	48M GBP
Fac ABEX	12M GBP
DRILLEX	44M GBP
Well ABEX	11M GBP

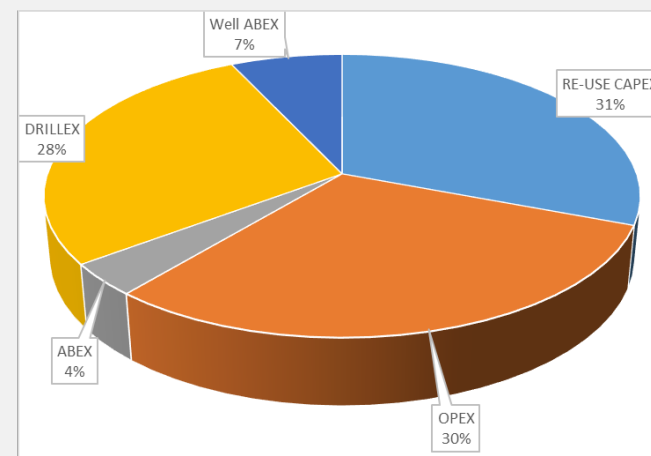


TieBack of the Future Field 1

Total	178M GBP
Fac CAPEX	70M GBP
Fac OPEX	48M GBP
Fac ABEX	6M GBP
DRILLEX	44M GBP
Well ABEX	11M GBP

Tieback of the Future

- Optimised Installation/Recovery
- Reduced Offshore works
- Optimised Procurement & Fabrication
- Recovery, Refurbishment, Reuse

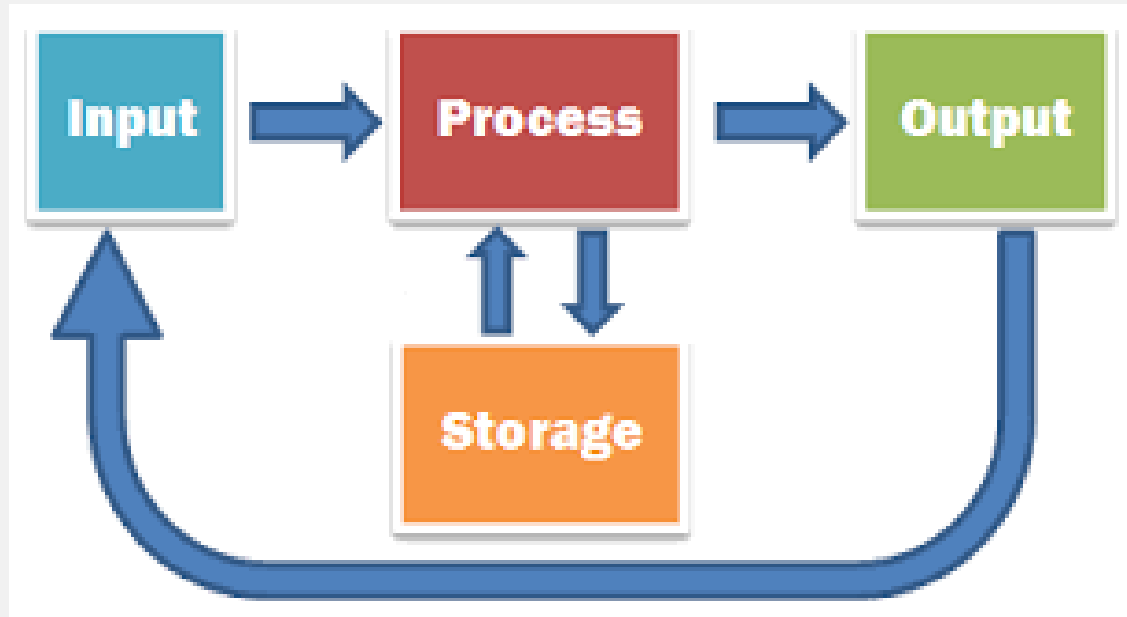


TieBack of the Future Field 2

Total	156M GBP
Fac CAPEX	48M GBP
Fac OPEX	48M GBP
Fac ABEX	6M GBP
DRILLEX	44M GBP
Well ABEX	11M GBP

4 Themes – Alignment, Understanding, Knowledge, Application

6 Core Workstreams – Teams, Priorities, Economics, Risks & Issues, Project, Programme



1. Organisation and Development
 - Purpose, Values, Vision
 - 5 Elements
 - K&I Test
2. Strategy Development and Priorities
 - Brainstorming
 - Matched Pairs
3. Economic Modelling
 - Scenario Development
 - Scenario Analysis
4. Risk and Issues Management
 - Deterministic
 - Probabilistic
5. Project Configuration
 - Work / Cost Breakdown
 - Resources
 - Baseline
6. Programme Management
 - Standardise
 - Simplify

Economic Assumptions

- Current UKCS Fiscal Regime
- 10% Discount Rate from 2017
- 2.5% Inflation Rate
- \$50 & \$40 Oil Price (Brent)

£ Assumption	
OGTC \$50 Oil	

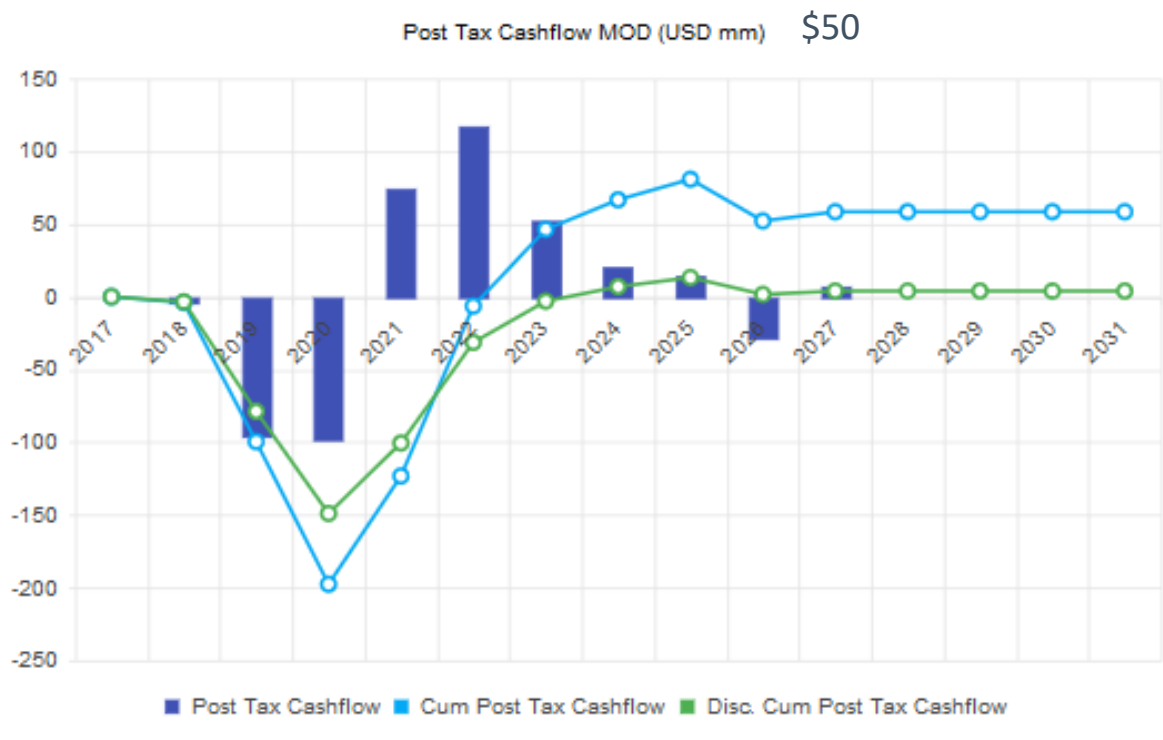
% Tax Rates	
CT	30%
SCT	10%
SCT (Aband)	20%

% Discount Rate	
Discount Rate	10.00%

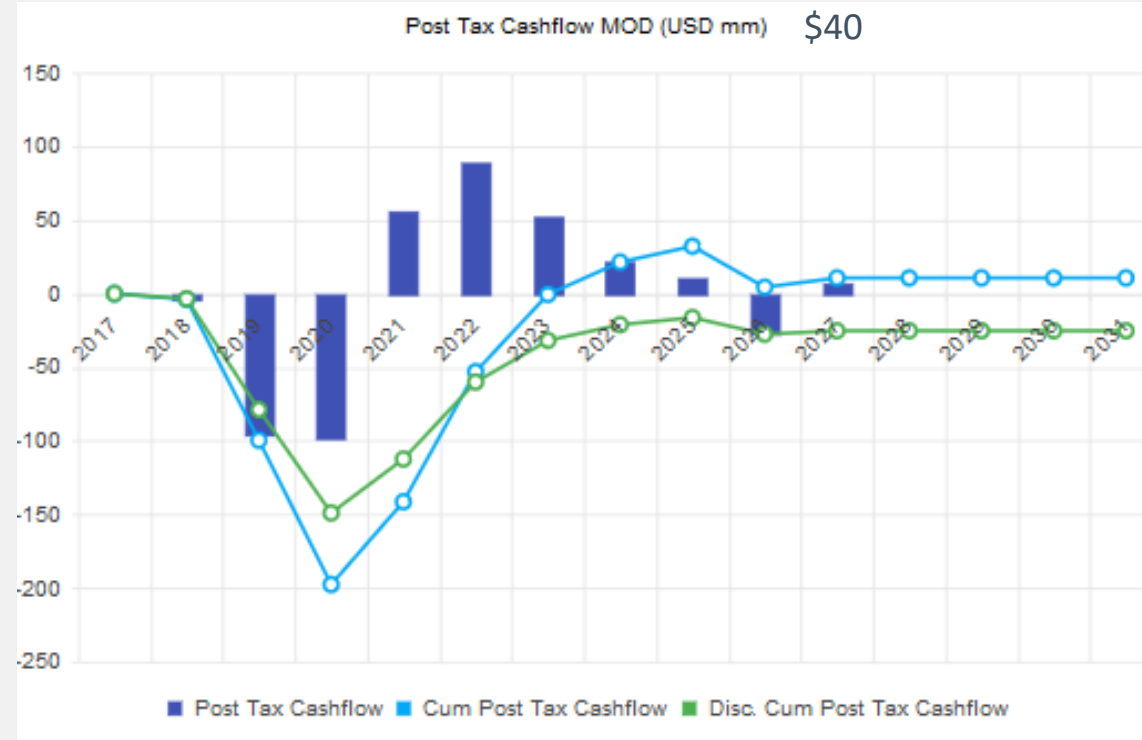
Conclusions

- Implementation of new technologies and techniques provide demonstrable added value (uneconomic to economic)
- Use of phased developments which utilise synergies and circular economies add further demonstrable added value
- New commercial structures allowing leasing of capital and equipment in preference to purchase open up development opportunities to smaller operators, unlock efficiencies and create a new market for the UKCS
- Full exploitation of opportunities requires a fresh approach to commercial structures and collaboration to be explored.

“Base Case” – Traditional Thinking Single Development

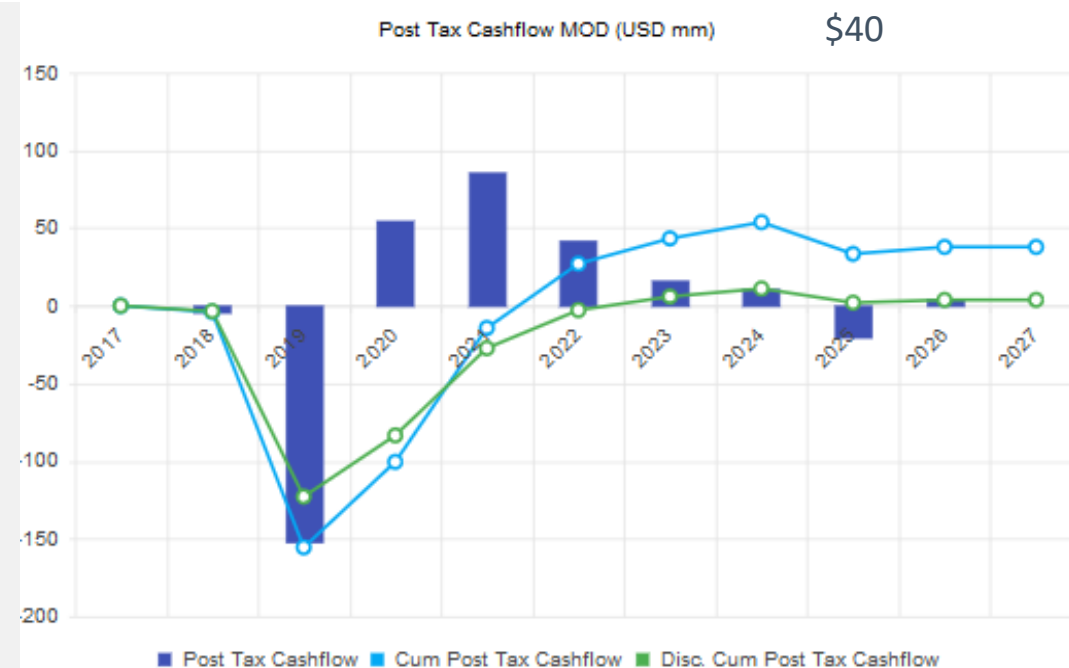
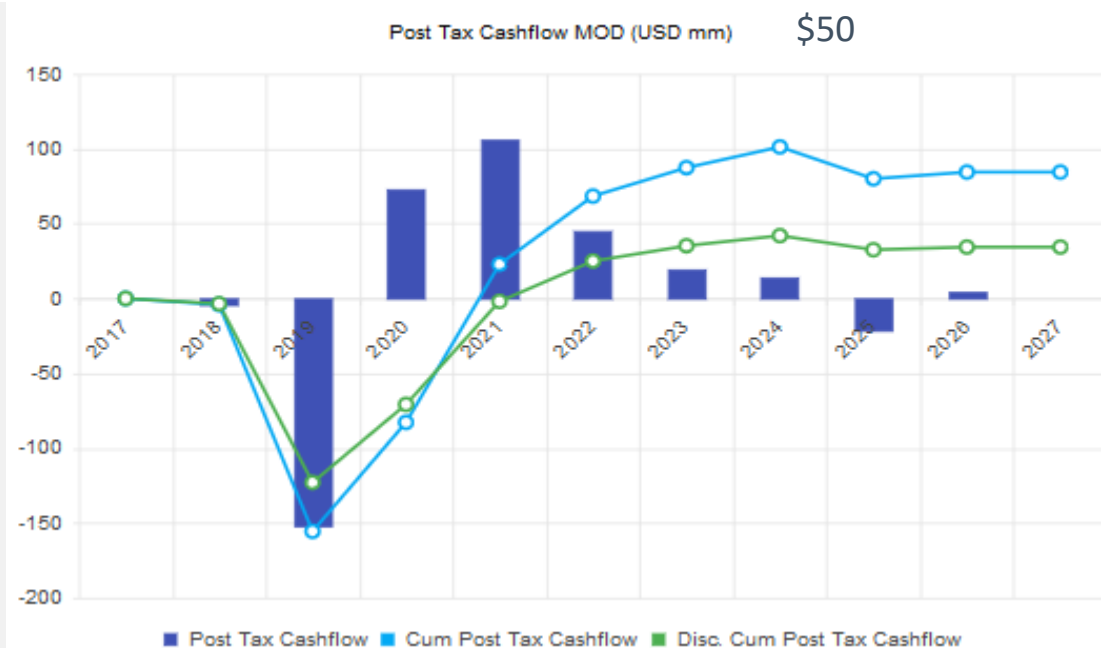


Discount Rate	10.00%
NPV (USD mm)	3.89
IRR (%)	11.16%



Discount Rate	10.00%
NPV (USD mm)	-25.27
IRR (%)	2.12%

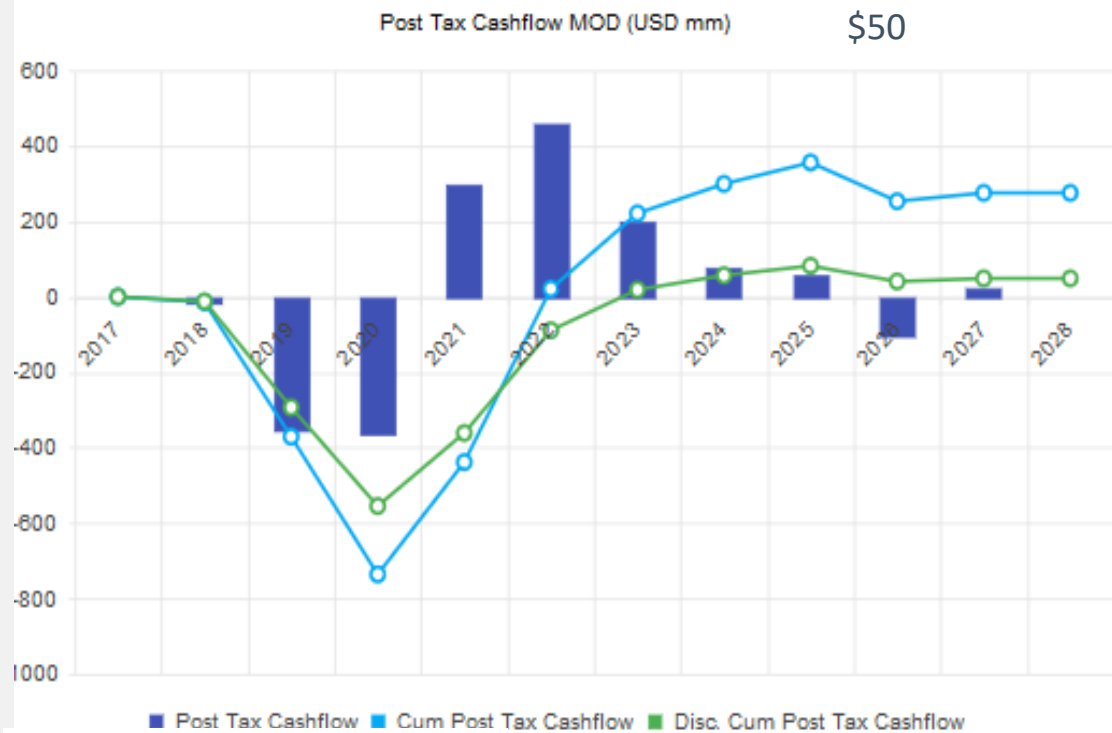
Optimised Development Single Development



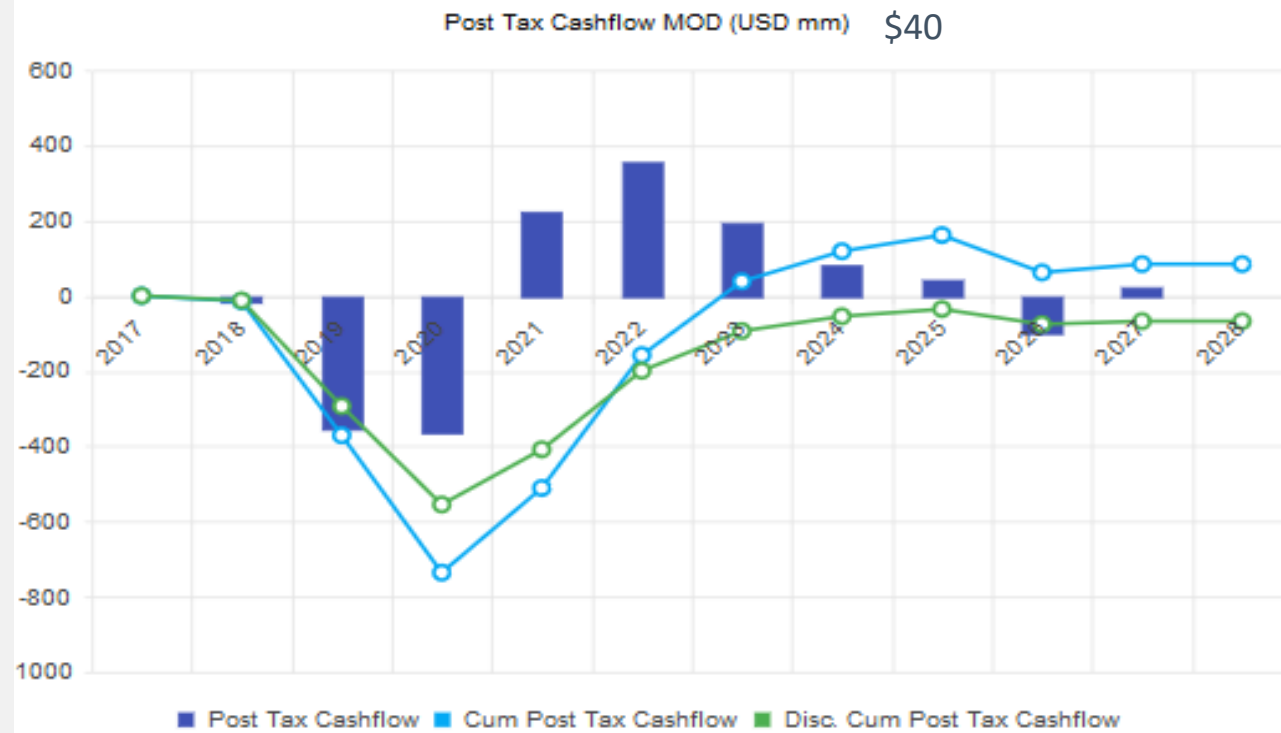
Discount Rate	10.00%
NPV (USD mm)	33.36
IRR (%)	24.52%

Discount Rate	10.00%
NPV (USD mm)	2.73
IRR (%)	11.23%

“Base Case” – Traditional Thinking “Stacked” Development



Discount Rate	10.00%
NPV (USD mm)	48.44
IRR (%)	13.82%

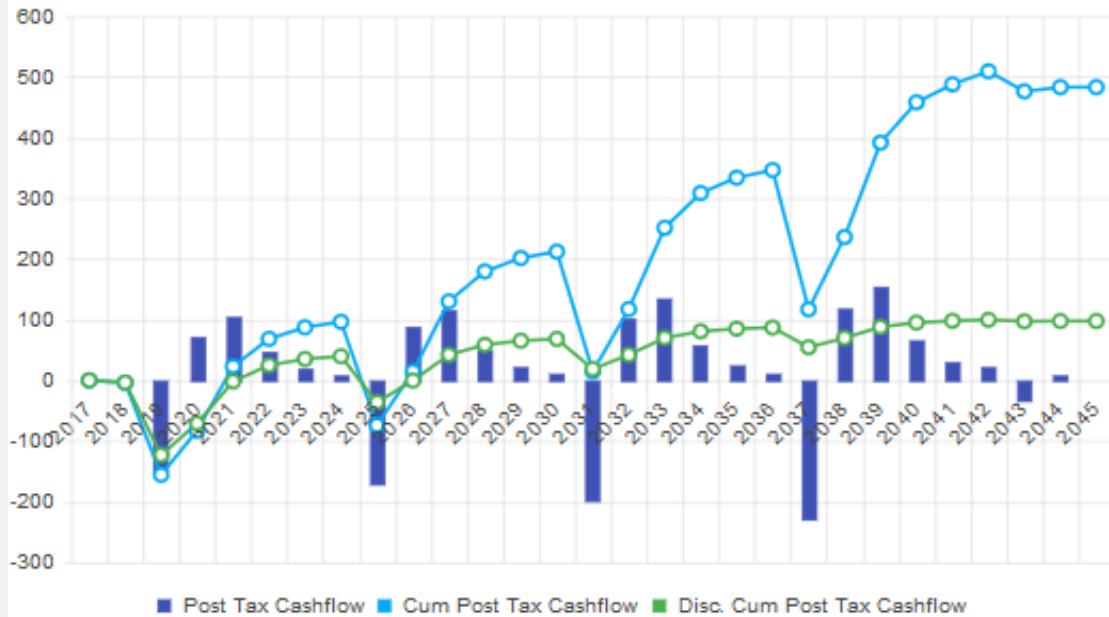


Discount Rate	10.00%
NPV (USD mm)	-67.54
IRR (%)	4.43%

“Tie Back of the future” Phased Development

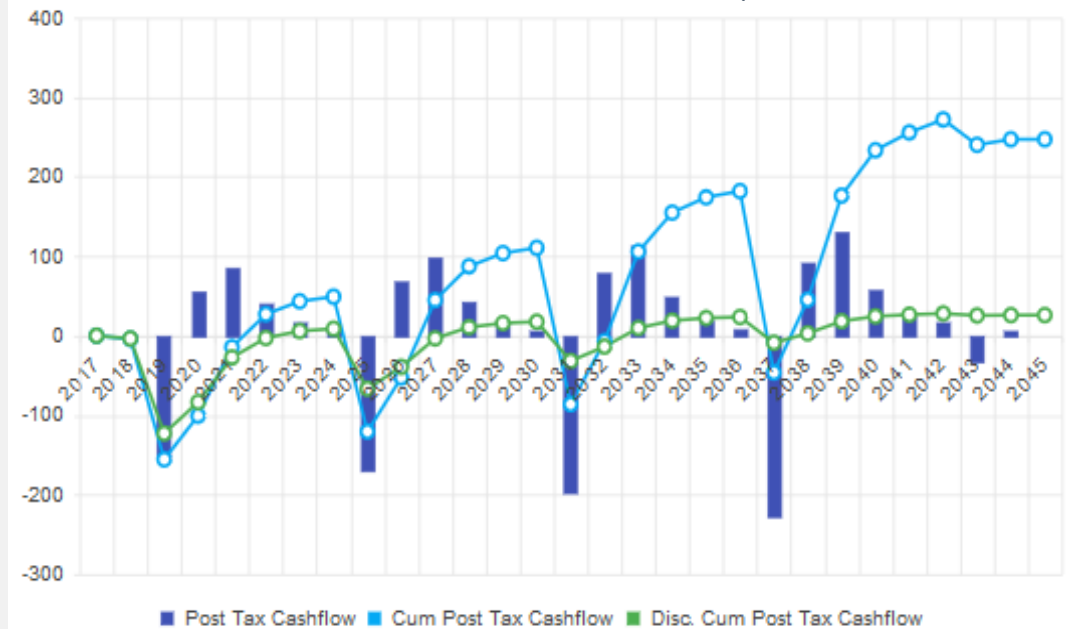


Post Tax Cashflow MOD (USD mm) \$50



Discount Rate	10.00%
NPV (USD mm)	100.61
IRR (%)	27.21%

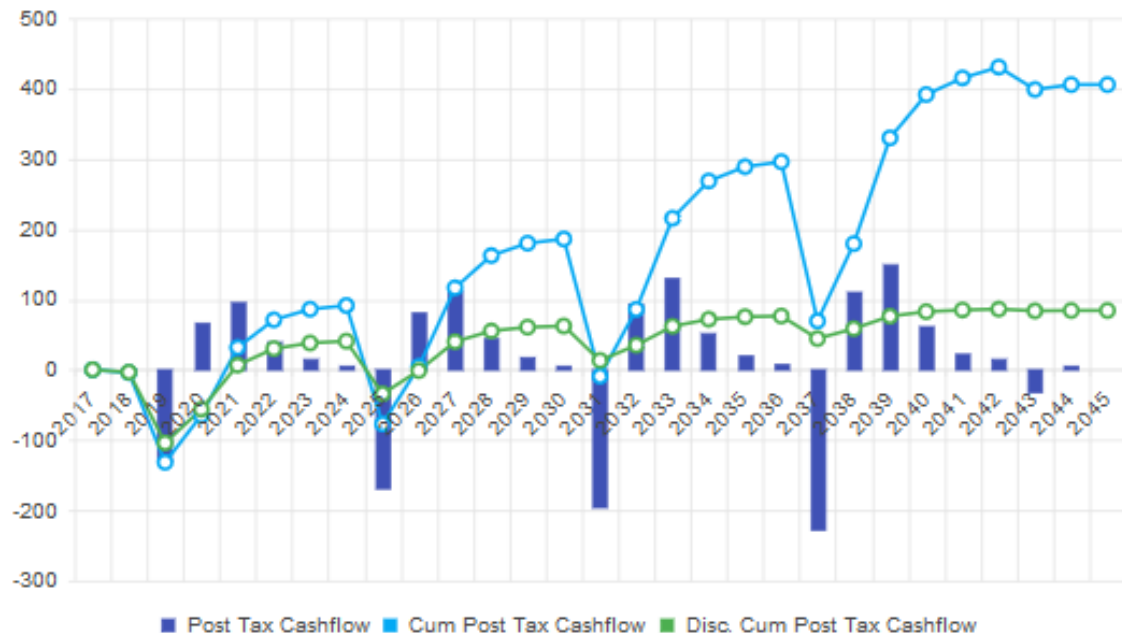
Post Tax Cashflow MOD (USD mm) \$40



Discount Rate	10.00%
NPV (USD mm)	28.75
IRR (%)	15.11%

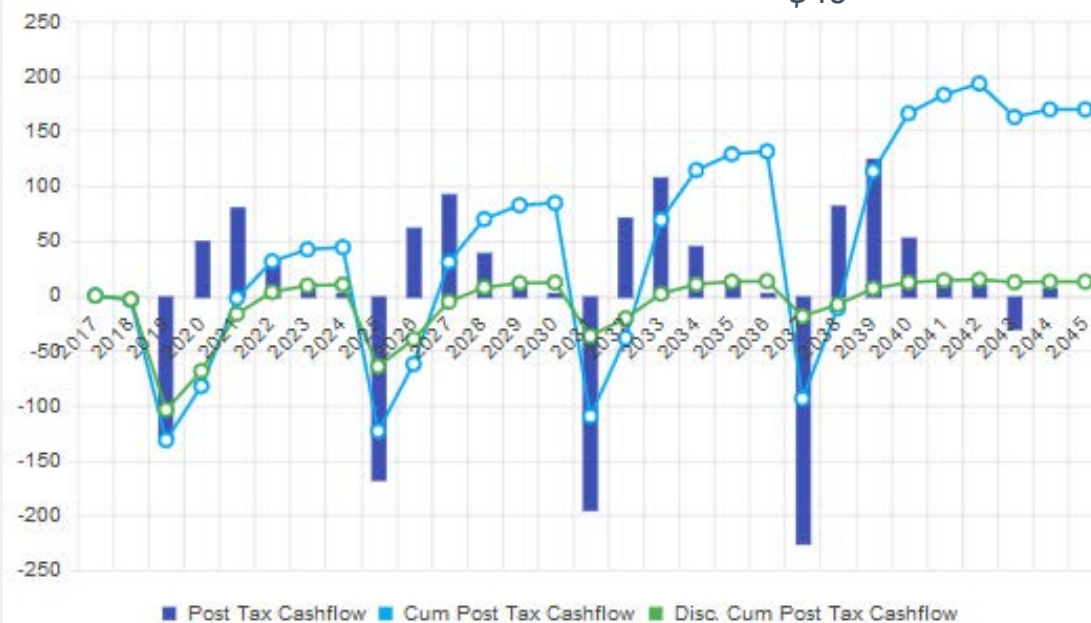
“Tie Back of the future” Lease Case

Post Tax Cashflow MOD (USD mm) \$50



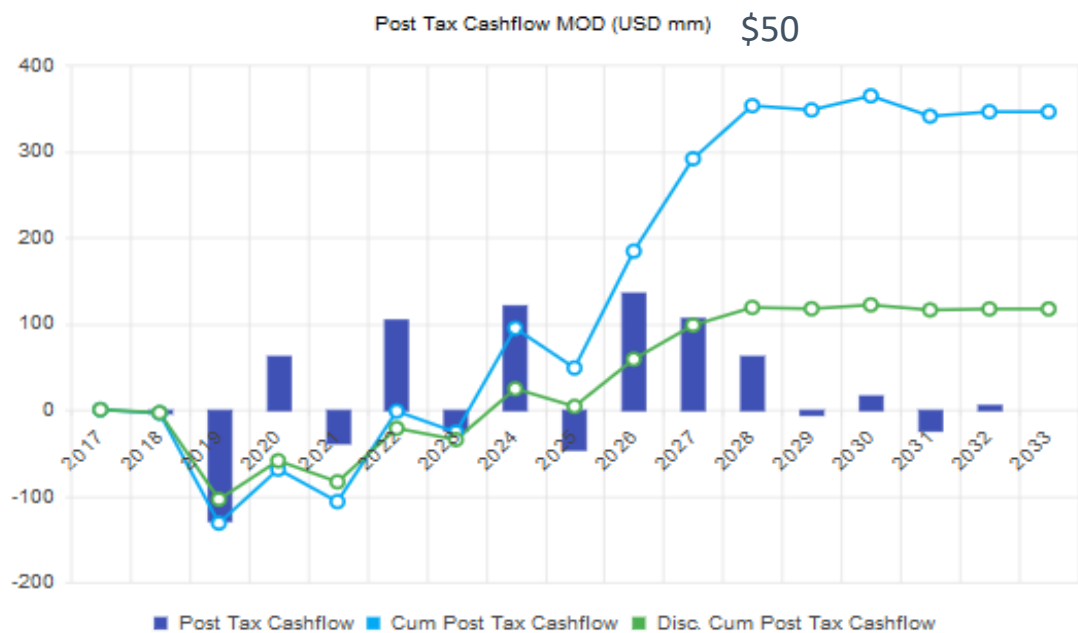
Discount Rate	10.00%
NPV (USD mm)	84.22
IRR (%)	28.91%

Post Tax Cashflow MOD (USD mm) \$40

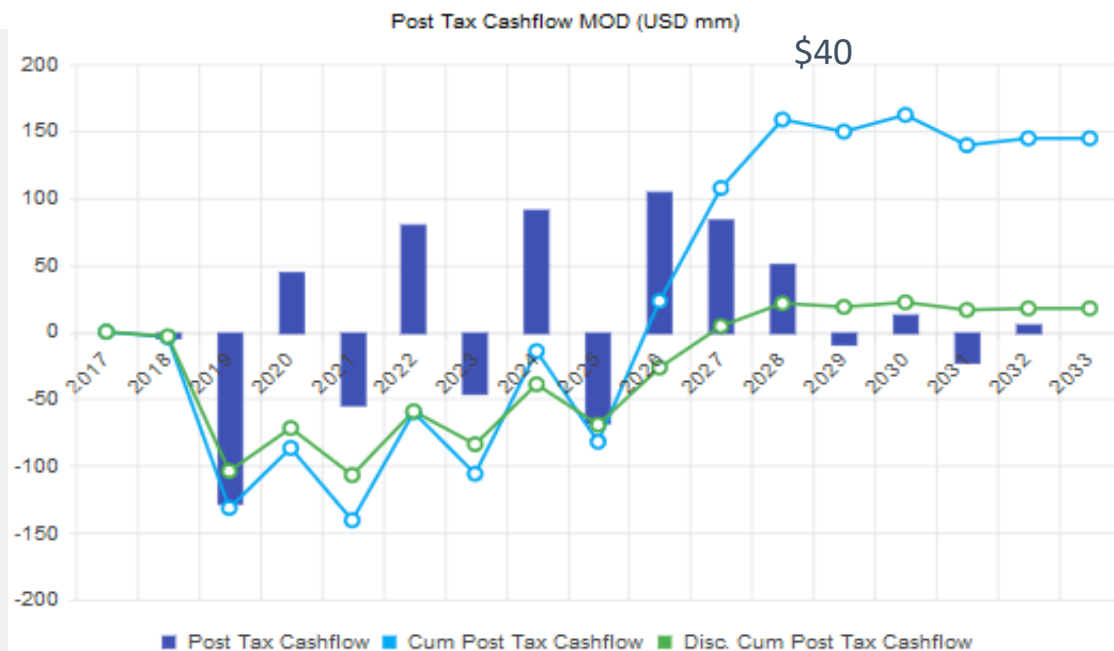


Discount Rate	10.00%
NPV (USD mm)	12.60
IRR (%)	13.01%

“Tie Back of the future” Reduced cycle Lease Case



Discount Rate	10.00%
NPV (USD mm)	116.75
IRR (%)	28.90%



Discount Rate	10.00%
NPV (USD mm)	17.45
IRR (%)	13.00%