



بنك الإمارات دبي الوطني
Emirates NBD

Credit Note

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Anita Yadav
Head of Fixed Income Research
+971 4 230 7630
anitay@emiratesnbd.com

www.emiratesnbdresearch.com

ACWA Power

International Company for Water & Power Projects ("ACWA Power"), a private developer and operator of power and desalination plants in the Middle East, raised \$814 million in May 2017 via issuance of senior secured, amortising bonds at 5.95% p.a., maturing in 2039 through its 100% owned SPV vehicle called ACWA Power Management and Investments One Ltd (APMI1).

The issuer, APMI1, is registered in Dubai International Finance Centre and operates under the English law. The issue, (INTLWT 39s), is rated BBB-/stable by S&P and Baa3/stable by Moody's and is currently trading at yield of 5.93% pa. ACWA Power on its own does not have a credit rating but is expected to have credit profile of an investment grade issuer.

INTLWT 5.95% 12/15/2039

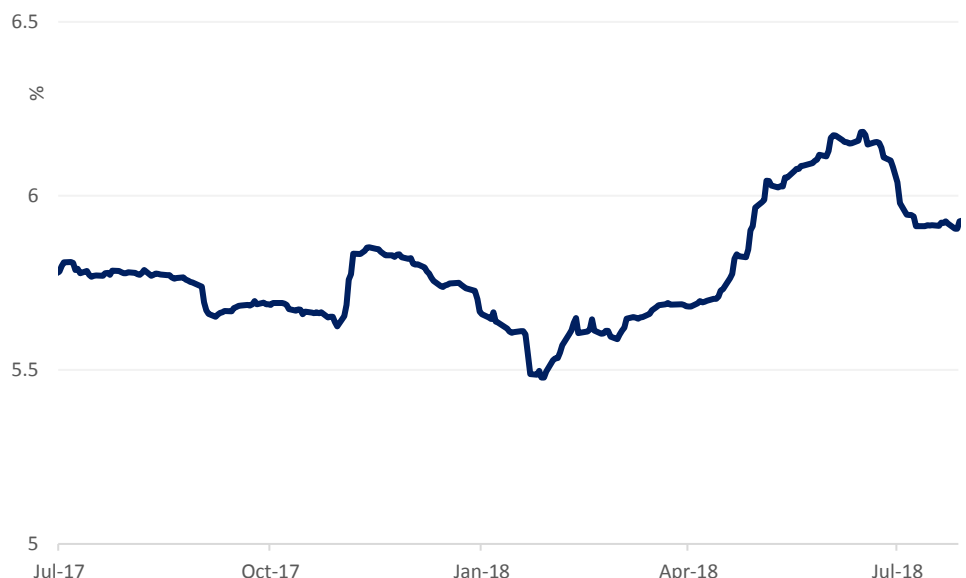
Since being issued at par, INTLWT 39s have traded in the range of \$97 to \$106 and its yield has fluctuated between 5.48% and 6.18%. Despite the 72bps increase in the benchmark 10 year UST yields since mid last year, the current yield on INTLWT 39s is only 5.93%, even tighter than the 5.95% at the time of issue which in turn is a validation of the company's reliable credit profile.

Reflecting material outperformance, year-to-date total return on INTLWT 39s stands at over 3.9% compared with loss of around 2% on EM USD bond index.

ACWA Power owns circa 40 projects in 10 countries and also owns First National Operations & Management Company (NOMAC), an established manager and operator of power and water projects. INTLWT 39s will be serviced by cashflow received as payouts in the form of dividends, shareholder loan repayments and fees from eight of ACWA Power's projects, all of which are located in Saudi Arabia and held via its subsidiary Arabian Company for Water and Power Projects (APP). In addition, cash flow from NOMAC's certain Saudi Arabian projects will also contribute to INTWT 39s debt serving.

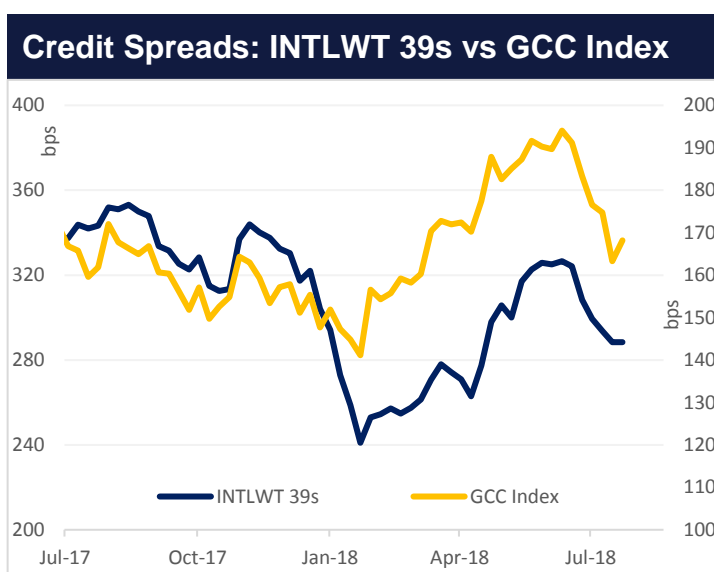
The bond structure is reasonably complex and is the first of this kind in the GCC region. However, strong underlying contractual arrangements with mostly government owned offtakers coupled with ACWA Power's strategic importance in the Kingdom of Saudi Arabia, along with sizeable indirect support from the government has made these bonds attractive to investors.

INTLWT 39s – Yield to Maturity



Source: Bloomberg, Emirates NBD

- Given that most of APP's production is contracted on a long term basis to credible offtakers, its financial performance is unlikely to show many swings and therefore the credit rating on INTLWT 39s is likely to remain largely stable. In view of this, we don't expect too many idiosyncratic developments at ACWA Power to change credit spreads at INTLWT 39s.
- While INTLWT 39s can not remain fully unscathed in the generalised sell off in EM bonds, these bonds have outperformed the GCC index by far. Z-spread on INTLWT 39s tightened 48bps to 288bps over the last one year compared with a 22bps widening in option adjusted credit spreads on the GCC bond index to 168bps during the same period.

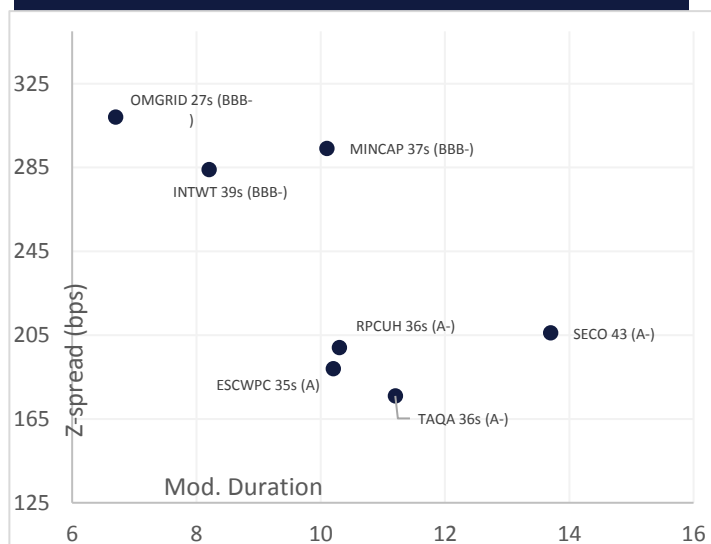


Source: Bloomberg, Emirates NBD Research

- Yield on INTLWT 39s has increased 20bps to 5.93% since the beginning of this year mainly as a result of rising US treasury yields. We expect UST yields to continue to rise; however, despite the expected 100- 200 bps increase in the Fed's target rate over the next two years, yield on longer dated USTs may not increase materially. We expect yield on 10yr USTs to remain below 3.5% and therefore the expected negative impact on the price of INTLWT 39s may be counterbalanced by its high coupon to a great extent.
- INTLWT 39s are trading slightly cheaper than similar rated peers from other jurisdictions and appear attractive on relative value basis. Some factors attributing to this may be:
 - The demand for amortizing bonds generally tend to be less than the senior bonds due to conservative mandates at many real money accounts;
 - The security structure is very complex with several asset holding companies, O&M companies and SPVs involved;
 - Though the credit rating on the KSA government has stabilised in the recent past, international investors' sentiment on KSA sovereign is cautious and subdued

and APMI1's direct and indirect exposure to KSA government may be making investors a bit cautious on INTLWT 39s.

INTLWT 39s – Peer comp



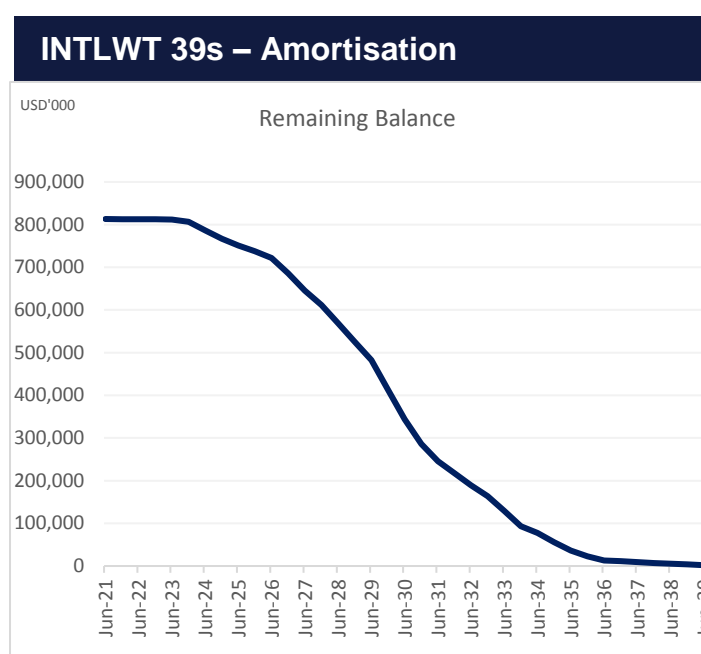
Source: Bloomberg, Emirates NBD Research

- The deal structure involves ring fenced cashflows in the form of dividends, shareholder loan repayments and fees from a diversified pool of eight projects. Also, subject to certain conditions, the structure is designed to facilitate incremental debt issuance through bonds or sukuk.
- Given the project-finance like structure of the deal and absence of many long-term focused sophisticated investor base in the region, not much of INTLWT 39s are held onshore. More than 80% of the bonds are in the hands of international investors. At the time of issue, uptake was varied and taken up by investors in the US (54%), Asia (10%), UK (9%), Europe (12%) and MENA (15%). Similar ownership pattern I slikely now albeit with further r eduction in middle east based investors. Generally bonds that are held by international investors tend to trade more frequently than the ones only held by GCC investors. However, given its long tenor and amortizing structure, secondary market in INTLWT 39s has been somewhat illiquid.
- Though ACWA Power has considerable exposure to the Saudi government, its significant private ownership does provide some diversification benefit to investors in a region where the bond universe is mainly dominated by sovereign and GRE bonds.

SALIENT FEATURES OF INTLWT 39s

Amortising obligation

- INTLWT 39s are amortising in nature. Commencing in June 2021 with semi-annual payments, the bonds are to be fully repaid by December 2039.
- The current weighted average life of the bonds is only 11.46 years, however, given the high coupon, the weighted modified duration of the bonds is even lower at only about 8.2yrs.



Source: Bloomberg, Emirates NBD Research

- The amortization amount is variable with bulk of the principal getting paid before expiry of most of the offtaker agreements.

Structural subordination

- The projects provided as security to INTLWT 39 bond holders have existing project debts that need to be serviced ahead of dividends, shareholder loan repayments and fees being paid to APMI1 for servicing of INTLWT 39s. In this regard the INTWT 39s are structurally subordinated to the senior project debt of the project companies (total circa \$9.8 billion in mid 2017).
- The risk of subordination is somewhat mitigated by the fact that project companies' cashflows have high degree of certainty. Also NOMAC KSA, which contributes c 12% - 15% of APMI1's cashflow, is relatively debt free; so the cash flows from NOMAC KSA are not structurally subordinated. Also the fees that NOMAC receive for O&M services rendered to the project companies and that are assigned for the benefit of

the bondholders are generally senior to the project level debt servicing expenses.

- The senior debt at the project companies is without recourse to ACWA Power and there is no obligation on APP or ACWA to support the project debt's servicing.
- The covenants in senior project debt documents appear accommodative. Stress testing undertaken by the rating agencies reflect minimal chance of dividend payments to APP by the project companies becoming restricted.

Snr Project Debt (as at mid 2017)

	SAR'mn	Main covenants
Shuaibah Expansion	482	<ul style="list-style-type: none"> DSCR > 1.15x Loan life Cover ratio > 1. 2x 6m DSRA
Shuaibah IWPP	4,542	<ul style="list-style-type: none"> DSCR > 1.15x Loan life cover ratio > 1.2x 6m DSRA
Marafiq	8,296	<ul style="list-style-type: none"> 6m DSRA DSCR > 1.125x
Shuqaiq IWPP	4,225	<ul style="list-style-type: none"> Loan life cover ratio > 1.15x DSCR > 1.2x 6m – 12m DSRA
Rabigh	6,476	<ul style="list-style-type: none"> 6m - 12m DSRA DSCR > 1.15x
Qurayyah	6,838	<ul style="list-style-type: none"> 6m DSRA DSCR > 1.125x
Rawec	5,857	<ul style="list-style-type: none"> No set covenants

Source: ACWA, Emirates NBD Research

No physical asset collateral

- The security package offered to INTLWT 39 holders does not include physical assets. The bonds are secured by ACWA Power's share interests in the project companies and in NOMAC, and by assignment of dividend, shareholder loan and fee-related cash flows (refer attached organization structure later) due and payable to APMI1.

Change of control clause

- Bond documentation includes a change of control clause with bondholders having a put option at 101% of face value if ACWA Power or existing shareholders of ACWA Power cease to own and control more than 50% of APMI1's, APP's or NOMAC's voting shares.

Debt service reserve account

- Debt holders benefit from a 12 month DSRA (debt service reserve account), which provides sufficient liquidity buffer against unexpected underperformance at any of the eight project plants and NOMAC. Furthermore, the size of the reserves, in proportion to the debt service requirement of a given period grows in the latter years of the debt term, which is protective of creditors at a time when there is relatively higher debt servicing burden on the cash inflows.
- We note that the reserve account does not need to be funded by cash and issuance of an unconditional Letter of Credit from any bank rated 'BBB' by S&P, or Fitch, or "Baa2" by Moody's, is sufficient to meet this requirement.

Financial covenants

- The covenant package supporting INTLWT 39s provides for cash to be locked-in favour of the bondholders should the issuer face any financial stress. Given the substantial amount of senior debt at individual project level, the covenants are measured both at APMI1 level as well as at the consolidated group level.
- Bond covenants require the issuer to maintain a minimum historical consolidated DSCR of 1.05x, where the DSCR is defined as the ratio of (a) project company and NOMAC cash flows available for debt service (after paying project companies' operating expenses and taxes) less operating expenses of the issuer; to (b) sum of project company and issuer debt service cost.
- Dividends from project companies to the APP/APMI1 are subject to meeting minimum project related DSCR covenant levels that range from 1.1-1.15x and distributions to ACWA from APP/APMI1 are subject to meeting a minimum historical and forward-looking DSCR of 1.35x.
- So far APMI1 has comfortably met all covenants and reflects sufficient resilience in stress testing scenarios.
- That said, as per rating agencies' stress testing, in some extreme cases, the projected DSCRs over the life of the bond falls short of DSCR thresholds required at some of the

project companies. However, a diversified portfolio with a number of dividend-paying assets limits the impact of single-asset dividend interruption of group cash flow on overall serviceability of INTLWT 39s.

Compliance with Covenants

Covenant	Covenant	Dec 2017 actual
APMI1 DSCR (Historical-2017)	1.35	5.74x
APMI1 DSCR (Forecast-2018)	1.35	2.95x
Consolidated DSCR (Historical -2017)	1.05	1.26x
Power Availability	90%	94%
Water Availability	90%	96%
Pledged cashflow to be routed through APMI1	Yes	Yes
Half yearly financials of APP, NOMAC & APMI2	Yes	Yes
DSRA fully backed funded by LC	Yes	Yes
Cash invested in permitted investments	Yes	Yes

Source: ACWA, Emirates NBD Research

- Strong DSCR in FY 2017 is mainly on account of only half year's worth of debt servicing cost and also better than expected performance at some of the power plants particularly the improved availability at Shuaibah IWPP and Rabigh IPP.

Credit Ratings

- INTLWT 39s are rated BBB/stable and Baa3/stable respectively by S&P and Moody's. Given the contracted nature of the group's revenue and expenses, overall movement in profitability is unlikely to be material to warrant frequent rating changes.
- Beside solid contractual cashflow, S&P's BBB- rating also accounts for expectation of solid recovery prospects. For rating stability, S&P expects

- EBITDA to Interest to remain above $> 2.5x$,
 - No material increase in leverage at the project companies level,
 - No adverse change in ownership of the project companies.
- For Moody's, rating movement would be linked directly to the operating performance of the underlying projects. Any prolonged disruption to revenue generation at the project companies levels will be detrimental for the credit rating.
- We expect ACWA Power's commitment to maintain investment grade rating as high in view of its ambitious growth plan and consequent need to maintain access to international debt capital markets.

KEY CREDIT CONSIDERATIONS

Group Background

- ACWA Power was established in 2004. The group has presence in 10 countries in MENA, Southern Africa and South East Asia regions. ACWA's portfolio includes interests in 40 projects totaling ~27 GW of power generation capacity and 3.0 mm cubic meters per day of water desalination capacity. Its power projects use thermal, solar photovoltaic (PV), concentrated solar power (CSP), and wind technologies.
- ACWA forayed into the Oman market in 2010 through the acquisition of Barka 1, continued to expand with the acquisition of Salalah Independent Power Plant in 2015 and currently has 3 projects under construction (Salalah 2 IPP greenfield project, Sohar 3 IPP and Ibri IPP) which are expected to become operational by 2018/19.
- The group is already one of the largest players in the region. Beside accounting for a quarter of total power capacity in KSA and 40% of contracted power capacity in Oman, it also has significant presence in Morocco and Jordan.
- Refer ACWA Group Structure on page 11 for details.**
- ACWA Power also offers operations and maintenance services for its power and water desalination projects through its wholly owned subsidiary, NOMAC.

Shareholders

- APMI1 is 100% owned by ACWA Power. ACWA Power in turn is owned by several investors as below. Recently Saudi Arabian government ownership has been enhanced through the Public Investment Fund acquiring a direct stake through a capital increase.
- World Bank's private investment arm, the International Finance Corporation (IFC) owns 4.3% stake in ACWA Power. The IFC's involvement as a shareholder implies that its high corporate governance standards are being adhered to, as is customarily required for IFC investments.
- PIF and other KSA GREs shareholding has increased to more than 29% which coupled with IFC means that more than 1/3rds of the company is now owned by these blue-chip institutional shareholders.
- Notwithstanding the strong profile of ACWA Power's shareholders, given the non-recourse nature of the financing, there is no expectation for additional shareholder support.

ACWA Power Shareholders

Holder	Type	%
Public Investment Fund, Sanabil Direct Investments Co & Saudi Public Pension Agency	Govt / GREs	29
International Finance Corp (World Bank Gp)	Supranational	4.3
ACWA Holdings	KSA based infrastructure owner	40.1
Al Rajhi Holdings Gp	KSA based conglomerate	19.7
Al Mutlaq Group	KSA based investment group	5.1
Other		1.8
Total		100

Source: ACWA, Emirates NBD Research

Strategically important player

- The eight KSA projects constituting the INTLWT 39s portfolio have an aggregate contracted capacity of 10.1GW of power and 2.3 mn cubic meters per day of desalinated water – representing circa 23% of power generation and 34% of water generation capacity in the KSA in 2016. Given its significant presence and its expertise, ACWA Power is strategically important to the KSA government in maintaining efficient power and water supply in the kingdom.

Strong linkage with highly rated government

- In addition to its 29% indirect stake in ACWA Power, the KSA government has a significant ownership interest in individual project companies. It indirectly holds a 20-50% stake in seven of the eight projects via SEC, Marafiq and PIF. Government-owned entities are also the off-takers of the projects under the long-term power and water contracts.

Supportive sector backdrop

- Saudi Arabia's Vision 2030 mandates privatisation of existing state owned power generation and water desalination capacities as well as pursuing new public-

private partnerships. ACWA Power is well positioned to take advantage of this growth opportunity.

- Water reserve margins in KSA are at less than 1 days need and electricity capacity is currently very close to peak demand with some occasions of blackouts in the past due to demand exceeding capacity during peak summer months. In June 2016 the government, in its National Transformation Plan, outlined targets of increasing power reserve margin to 12% and strategic water storage to 3 days. Consequently there has been private sector participation. ACWA Power is the largest private power generator and desalinated water producer in Saudi Arabia and is well positioned to profit from this growing dynamic.

Solid competitive advantage

- Economies of scale due to its large portfolio, strong relationship with suppliers and in-house O&M services provider are the factors helping ACWA Power to maintain a competitive price advantage over its peers and this, in turn, is supporting its fast business growth.

Long term offtake contracts with strong counterparties

- The project companies' cash flow is supported by long-term offtake contracts with government-owned entities, such as Saudi Electricity Co. (SEC), or Water and Electricity Co. (WEC), Saline Water Conversion Corp (SWCC), Tawreed, and Petrorabigh etc. These offtake agreements are generally for 20 years. While most agreements are expected to be renewed or acceptably redrafted, the rating agencies have not factored any such potential contract extensions into the current credit ratings or forecasts.
- Also we note that most P(W)PAs benefit from termination guarantees from the Ministry of Finance in Saudi Arabia in case of any unforeseen development causing early termination.

Offtake contracts

Project	Off-taker	MOF G'tee	Contract Duration yrs
Shuaibah Expansion IWP	WEC	Yes	20
Shuaibah IWPP	WEC	Yes	20
Marafiq IWPP	Tawreed	Yes	20
Shuqaiq IWPP	WEC	Yes	20

Rabigh IPP	SEC	*	20
Qurayyah IPP	SEC		20
Bowarege IWP	SWCC	*	2 yrs (2)
Rawec IWSP	Petro-Rabigh	no	25

Source: ACWA, Emirates NBD Research

*If SEC's credit rating drops below "BBB" then its required to arrange acceptable replacement credit support.

Low risk of contract cancellation

- The risk of the contractual agreements with the offtakers being terminated is considered low as the relevant Project Companies' performance on its obligations under the relevant P(W)PA, PPA or WPA has been strong. Also this risk is somewhat mitigated by the fact that ACWA Power projects are significant contributors to KSA's overall supply base and any disruption at these projects will cause severe disruption to power and water supply in the country.

Contractual Availability

	Threshold	2014	2015	2016	2017
POWER					
Shuaibah IWPP	67%	93%	86%	91%	95%
Marafiq IWPP	75%	92%	98%	97%	94%
Shuqaiq IWPP	67%	95%	97%	96%	91%
Rabigh IPP	67%	94%	93%	87%	96%
Qurayyah IPP	75%		76%	87%	92%
RAWEC IWSP	90%	96%	93%	94%	100%
WATER					
Shuaibah Expansion IWP	67%	96%	98%	97%	96%
Shuiba IWPP	67%	90%	86%	91%	94%

Marafiq IWPP	75%	95%	97%	99%	98
Shuqaiq IWPP	67%	96%	98%	99%	98
Bowarege IWP	95%	61%	89%	89%	97
RAWEC IWSP	90%	97%	95%	93%	100

Source: ACWA, Emirates NBD Research

- While there are small ongoing disputes with offtakers which the group is entangled in, we don't see the risk of these disputes threatening the continuation of contractual agreements.
- The only notable dispute relates to disagreement between the offtaker (WEC) and project companies - SWEC, SqWEC and SEPCO, about the methodology to calculate the impact of modification of KSA CPI (i.e. inflation indexation) on revenue payments. The current progress on negotiations augurs well for the issue to be resolved amicably. The project companies are already invoicing WEC on their methodology and thus the resolution of this issue will result in a possible upside.

Limited variability in the net cashflow

- As per the contractual terms, the off-takers are to make availability-based payments to the project companies, irrespective of actual output (except for Bowarege, a small contributor to cash flow). These capacity payments account for the bulk of project companies' revenues. In addition, output payments cover variable operation and maintenance costs based on actual electricity and water output. These account for a much smaller proportion of revenue. Since any change in variable costs gets offset by changes in variable revenue (since both are output linked), the overall net cashflow of the project companies is largely stable and predictable.

Experienced operator reduces operational risk

- NOMAC provides O&M services to all of the project companies and is an experienced operator, serving ACWA owned projects worldwide. The operational performance of the plants under NOMAC has been satisfactory, with an average technical availability of 93.5% for power and 96% for water in 2017.

Low technology execution risk

- The portfolio uses simple, proven technology that has a long track record. Consequently, the likelihood of cash flow

interruption to APM11 due to operational challenges is limited. Six of the eight plants have been operational from 2008-13 and utilise fairly straightforward steam turbine or combined cycle technology. Operational performance in recent years has been satisfactory, with all plants comfortably meeting technical availability-based thresholds under their offtake agreements. Only Rawec IWSP has suffered from two unplanned shutdowns, due to accidental errors, that led to a termination event which itself led to the operator being replaced by NOMAC. Since NOMAC's involvement, performance has been satisfactory.

Stable cashflow from NOMAC

- Payments made to NOMAC by the project companies are senior in the cash-flow waterfall of the project companies (i.e. ahead of project company debt service). NOMAC's dividends account for c.12% of cash flows over the life of the bond, with a greater contribution in the initial years. Also unlike the project companies, NOMAC is unleveraged and therefore not subject to debt-related distribution restrictions. In this regard, the certainty of cashflow from NOMAC towards servicing of INTLWT 39s is high and is a source of comfort.

Lack of control over the underlying plants

- Despite being the largest private sector shareholder in the security projects, ACWA Power's stake in individual plants is only between 17.5% - 40% (excluding the relatively smaller Bowarege project). Whilst ACWA Power alone does not control the plants, there are protective provisions, as below, in the shareholder agreements of the project vehicles and holding companies which somewhat mitigate key risks associated with the perceived lack of control.
 - Requirement of the Project Companies to distribute all available dividends to shareholders
 - Restriction on Project Companies to increase leverage or incur additional indebtedness.
 - Also, in several projects, ACWA Power has the power to appoint key management positions and a significant number of board members pro-rata to its shareholding in the Project Companies.

- The ownership of the individual projects is through several special purpose companies. However shareholder agreements at each level allows for ACWA Power to maintain control of the intermediate holding companies.
- We also take comfort from the fact that most projects have 40-50% ownership by the Saudi government owned entities in this in turn reduces the risk of frequent changes in owner's investment strategy.

Ownership in security projects

	Asset Cost \$ mn	ACWA Power's ownership %	Govt ownership	Other investors
Shuaibah Expansion IWP	233	30	SEC: 8%, PIF: 32%	30
Shuaibah IWPP	2,450	30	SEC: 8%, PIF: 32%	30
Marafiq IWPP	3,359	20	SEC: 5%, PIF: 5%, Marafiq: 30%	40
Shuqaiq IWPP	1,831	32	SEC: 8%, PIF: 32%	28
Rabigh IPP	2,506	40	SEC: 20%	40
Qurayyah IPP	2,717	17.5	SEC: 50%	32.5
Bowarege IWP	99	64.85	na	35.15
Rawec IWSPP	2,175	37	Petro- Rabigh: 1%	62

Source: ACWA, Emirates NBD Research

Adequate risk mitigants

- The financial performance of the projects are substantially insulated from some of the risks as below:

- There is minimal fuel price risk since fuel is supplied by the off-taker on a tolling basis in almost all projects.
- Mitigating the FX risk are the adjustment mechanisms that exist for the foreign currency component of the tariff/costs being indexed to the prevailing official dollar-riyal exchange rate parity rate with the exception of Bowarege (that only accounts for 2% of APMI1's cash-flow).
- Interest rate risk is largely hedged via use of interest rate swaps at the eight individual project companies.
- Concentration risk is mitigated by the location of various projects in different locations throughout Saudi Arabia. If any single asset fails, production from other plants can compensate somewhat.

Limited liquidity

- APMI1 is expected to pay all excess cash beyond the covenant requirement of DSCR of 1.35X (2.95x for the 12 months commencing Dec. 16, 2017) forward-looking lock-up as distributions to ACWA Power. As such, it will not retain cash on its balance sheet and therefore will have limited in-house liquidity. However, presence of DSCR reserve account equivalent to 12 months debt servicing amount provides great comfort. Also ACWA Power has access to substantial, largely unutilized, bank facilities for general corporate purpose which may be made available to address any liquidity shortfall at APMI1 (though there is no formal recourse to ACWA Power).

Adequate insurance

- The projects benefit from comprehensive insurance packages, which are in line with market precedents and project finance lender requirements to cover all risks including business interruption. This would help bridge the cash flow shortfall, should any of the projects face business interruption.

Update on NOMAC restructuring

- Beside the eight projects covered in the INTWT 39's security package, NOMAC provides O&M services to most ACWA owned projects worldwide. By virtue of having access to NOMAC's entire cashflows, currently bond holders are oversecured. However, NOMAC restructuring is underway to carve out the cash flows attributable to just those Saudi Arabian projects that are part of INTLWT 39s' security package.

Satisfactory Operating and Financial Performance

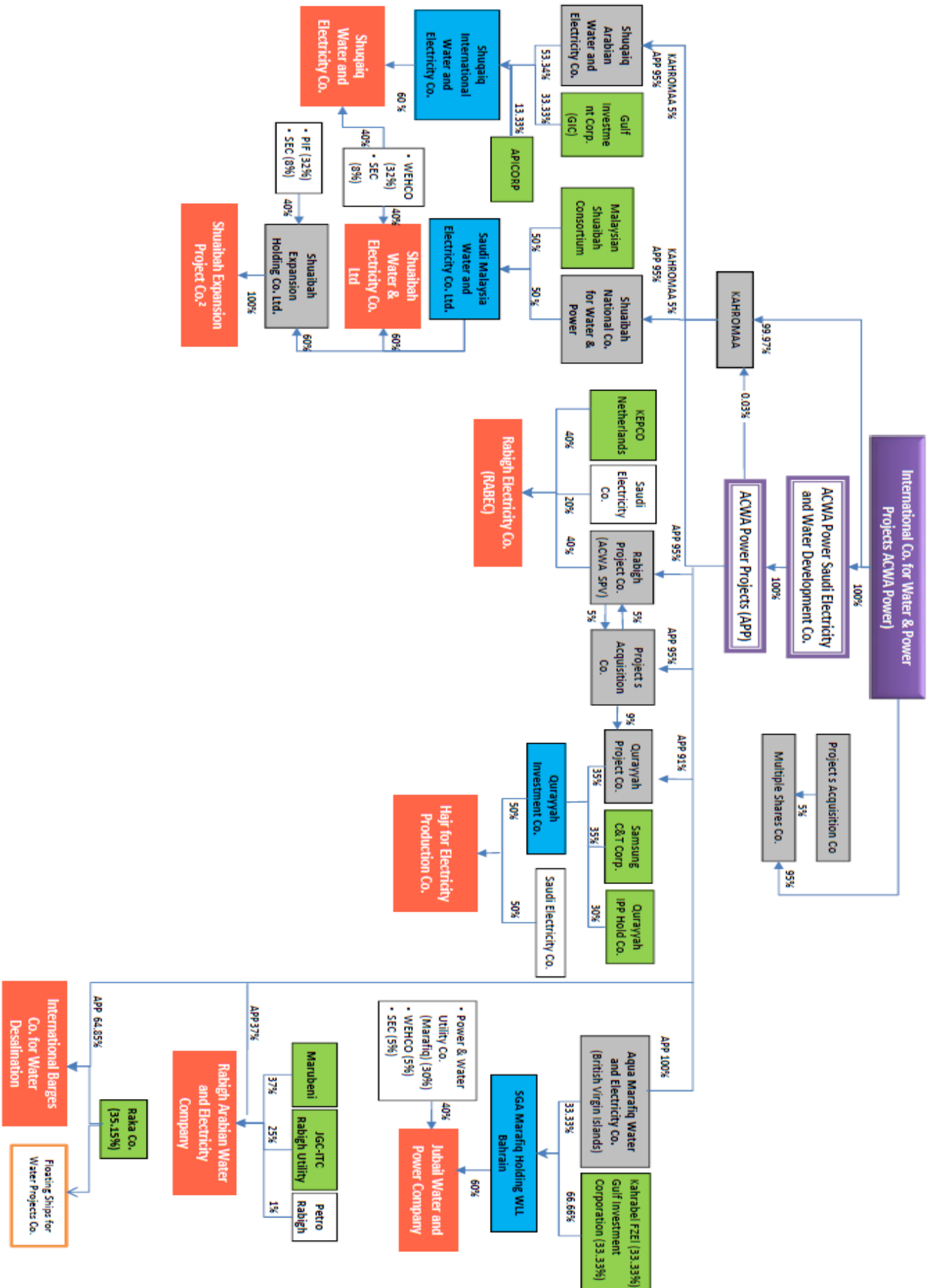
INTLWT Finance accounts

- Cash credited into the INTLWT 39 related finance accounts has been better than original projections owing to the good performance of the underlying projects.
- The distribution received into the finance account is the dividend contribution from project companies captured under APP as well as from the operating business of NOMAC. The improved cash contribution is attributed to better than expected performance both at APP as well as that of NOMAC.

Finance Accounts		
USD mn	Actual Dec 2017	Forecast Dec 2018
Distribution Received	162	143
DSCR Requirement	28	48
DSCR Cover	5.74	2.95

Source: ACWA

- APP's financial performance has actualized to be better than forecast largely as a result of higher capacity being made available for power and water desalination.



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