

CREDIT OPINION

29 November 2019

Update

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RATINGS

Alliander N.V.

Domicile	Netherlands
Long Term Rating	Aa2
Type	LT Issuer Rating
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Alliander N.V.

Update to credit analysis

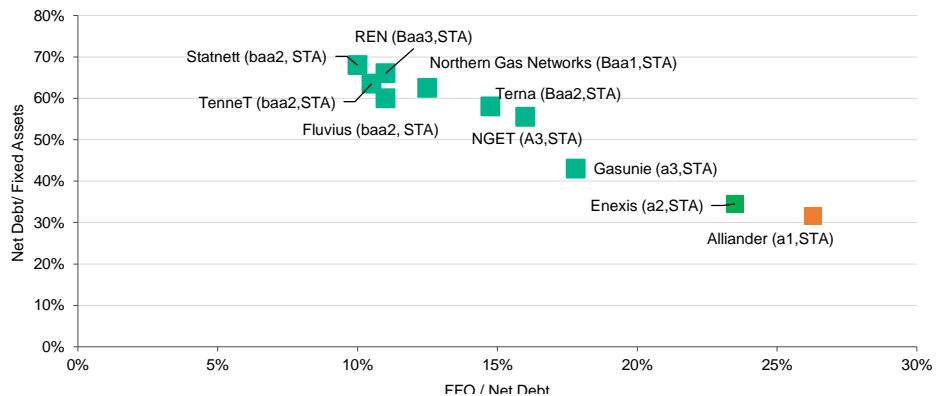
Summary

Alliander N.V. (Alliander, Aa2 stable)'s credit quality is underpinned by (1) its low business risk as the monopoly provider of electricity and gas distribution network services within its service area; (2) stable and predictable cash flows, generated under a well-established and transparent regulatory framework; and (3) its strong financial profile, with very modest leverage (as measured by Net Debt / Fixed Assets) compared to other European networks.

However, Alliander's credit quality is impacted by the expected weakening of cash flow metrics over the remainder of the current regulatory period, which ends in December 2021, reflecting (1) further declines in regulatory allowed returns over this period; and (2) growing capital spending, primarily related to facilitating delivery of the country's ambitious energy transition objectives.

Exhibit 1

Very modest leverage, compared to other European networks, supports strong stand-alone credit quality



(1) Ratings are the standalone credit quality, expressed as assigned final rating or baseline credit assessment where applicable. (2) Financial metrics shown represent midpoint of Moody's forward view estimates as published in latest credit opinions; (3) Net Debt / RAB rather than Net Debt / Fixed Assets shown for NGET (National Grid Electricity Transmission plc, A3 stable) and NGN (Northern Gas Networks Limited, Baa1 stable)  
Source: Moody's Investors Service

Alliander's Aa2 rating incorporates two-notch of uplift from its stand-alone credit quality, reflecting the strong probability of extraordinary financial support being provided its owners, the largest of which is the Province of Gelderland with a 45% shareholding, if this was ever needed.

## Credit strengths

- » Low business risk of monopoly distribution network activities, with limited contribution from unregulated businesses
- » Well-established and transparent regulatory regime providing relatively stable and predictable cash flows
- » Strong financial profile, with very modest leverage (as measured by Net Debt / Fixed Assets) compared to other European networks
- » Expectation of strong support from local government shareholders, given the essentiality of assets and the key role the company will play in facilitating the energy transition in its service area

## Credit challenges

- » Reductions in allowed returns have already reduced financial flexibility
- » Growing capital spending requirements in the 2020s to support the country's energy transition will increase leverage and may weaken the business risk profile of the group if it results in material growth in unregulated activities, e.g. heating networks
- » Gas networks face stranded asset risk under the energy transition, although the regulator is considering options to alleviate this
- » Continued low interest rate environment will likely lead to a further material reduction in allowed returns in the next regulatory period (commencing January 2022), depressing cash flow based metrics, under the ACM's current approach to setting allowed returns

## Rating outlook

The stable outlook reflects our expectation that Alliander will continue to derive the vast majority of its earnings and cash flows from low-risk regulated activities and maintain a financial profile in line with our minimum guidance for the current rating.

## Factors that could lead to an upgrade

An upgrade of the final rating is considered unlikely at this stage, taking into account the expected modest weakening in Alliander's financial profile as a result of decreasing allowed returns during the current regulatory period and the increase in capital spending requirements intended to facilitate the energy transition. Over the long term, upward pressure for the rating would develop if:

- » the growth capex programme is substantially complete;
- » Alliander continues to derive the vast majority of its earnings from monopoly activities governed by a well-developed and stable regulatory framework; and
- » Alliander exhibits improved cash flow based metrics, expressed as Funds from operations (FFO) / Net Debt comfortably above the mid-thirties and retained cash flow (RCF) permanently in the high-twenties, both in percentage terms.

## Factors that could lead to a downgrade

Downward rating pressure would arise if:

- » Alliander failed to maintain the following minimum credit metrics: FFO / Net Debt above 25% on a sustainable basis and Net Debt / Fixed Assets below the low forties in percentage terms; or
- » there was a material increase in the proportion of earnings from unregulated activities, for example heat, as Alliander facilitates delivery of the energy transition; or
- » there was a deterioration in either our assessment of the credit quality of Alliander's local government shareholders or the likelihood of them providing extraordinary support to the company.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

## Key indicators

Exhibit 2

### Alliander N.V.

	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18	LTM Jun-19
FFO Interest Coverage	7.5x	7.7x	8.4x	9.7x	11.9x	11.7x
Net Debt / Fixed Assets	28.1%	29.2%	27.9%	29.8%	28.1%	30.3%
FFO / Net Debt	31.9%	26.3%	25.1%	25.5%	30.4%	26.0%
RCF / Net Debt	24.4%	19.4%	20.1%	20.1%	25.1%	19.2%

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

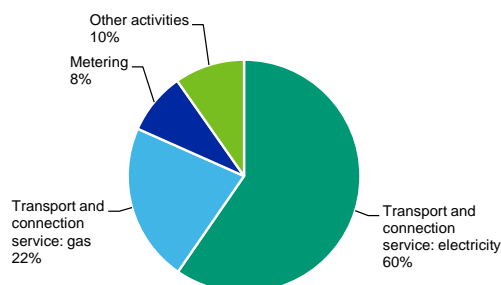
Source: Moody's Financial Metrics™

## Profile

Alliander N.V. owns and manages low and medium voltage electricity and gas distribution networks in the Dutch provinces of Gelderland, Noord-Holland, Flevoland and large parts of, Friesland and Zuid-Holland. The company is the largest electricity and gas network operator in the Netherlands with approximately 3.2 million electricity and 2.5 million gas connections, covering around 35% of the Netherlands. The vast majority of Alliander's revenues come from its regulated activities (Liander network activities).

Exhibit 3

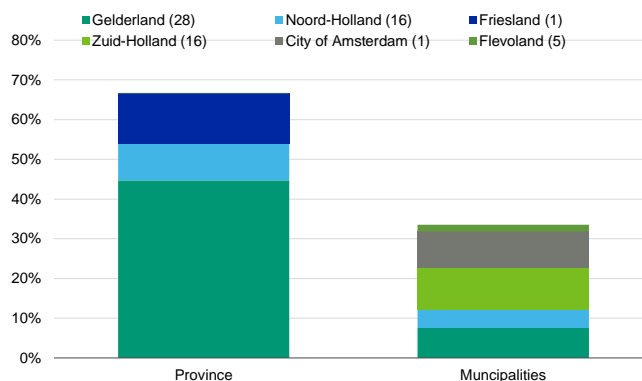
### Revenue breakdown by segment (LTM ending June 2019)



Source: Company reports

Exhibit 4

### Dutch provinces own the majority of Alliander Breakdown of voting rights, number of shareholders in brackets



Source: Company reports

The company is fully owned by Dutch provinces and municipalities, with the largest stakes held by the provinces of Gelderland (44.68%), Friesland (12.65%) and Noord-Holland (9.16%), and the City of Amsterdam (9.16%). The remaining 24% share is owned by 73 small municipalities where Alliander provides its network services.

## Detailed credit considerations

### Low business risk profile supported by predictable cash flows from predominantly regulated activities

Alliander's core business activities relative to low-risk monopoly energy distribution network operation. These activities contribute over 85% of Alliander's revenues and provide relatively stable and predictable cash flows under a well-established and transparent regulatory framework.

Alliander's remaining revenue largely relates to services offered to customers with regulated network activities, such as network service, maintenance and operations for regulated monopolies, and are carried out through Qirion. Whilst these business are non-regulated they are strongly linked to Alliander's core business.

We expect the proportion of non-regulated cash flows to increase in the 2020s with the likely growth in heating networks to facilitate the energy transition (new heating systems will be needed for 1.5 million houses in the Netherlands by 2030 under the Climate Agreement, discussed below), absent a regulatory framework being put in place for these activities.

### Well-established regulatory framework but returns continue to decline

The Dutch regulatory framework, applied for almost 20 years for network operators, allows the country's distribution network operators to earn a return on their regulated asset base (RAB) and provides allowances for costs adjusted for consumer price index (CPI) inflation and an efficiency incentive factor. The regulation incorporates incentives determined using a "yardstick" mechanism, which defines the cost efficiency and quality factors based on industry averages and encourages network operators to improve profitability by outperforming the sector. This approach is typical among regulatory regimes in Europe and we consider that the application by the Dutch regulator, the Authority for Consumers and Markets (ACM), has been transparent and consistent to-date.

Exhibit 5

#### Alliander scored Aa for Stability and Predictability of Regulatory Regime

##### Stability and Predictability of Regulatory Regime by country as scored under our Regulated Electric and Gas Networks methodology

Aaa	Aa	A	Baa
Great Britain <sup>1</sup>	Czech Republic	Belgium - Flanders	Belgium - Wallonia
	Finland	Estonia	Poland
	France	Germany	Slovakia
	Ireland (Rol & NI)	Portugal	Spain
	Italy		
	<b>Netherlands<sup>2</sup></b>		
	Norway <sup>3</sup>		

(1) Excludes offshore transmission owners (OFTOs) (Aa); (2) Excludes Gasunie and TenneT (both A); (3) Excludes Solveig (Baa); (4) Sub-factor scores as of November 2019.

Source: Moody's Investors Service

The current regulatory period for both electricity and gas distribution runs from January 2017 to December 2021. The Method Decisions, the ACM's Final Determination, were published in September 2016 and originally included a gradual reduction in the allowed return (weighted average cost of capital, WACC) from 4.3% to 3.0% (both pre-tax, real) by 2021. Following successful appeals from Dutch network operators, new Method Decisions were published in January 2019 but the average WACC was unchanged (the WACC started and finished 20 basis points higher and lower respectively), as Exhibit 6 shows. However, allowed revenues over the regulatory period for the DSOs will be unaltered as a result of this change, due to the 'reformation in peius' principle (see highlight box below).

Exhibit 6

#### Allowed return for Dutch network operators shows a declining trend

WACC - Dutch DSOs	2008-2010	2011-2013	2014-2016	2017	2018	2019	2020	2021
risk free rate	4.00%	3.95%	2.50%	2.27%	2.03%	1.80%	1.56%	1.33%
risk premium	0.80%	1.50%	1.20%	0.91%	0.88%	0.86%	0.83%	0.81%
transaction costs	0.00%	0.00%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
<b>Nominal Cost of Debt</b>	<b>4.80%</b>	<b>5.45%</b>	<b>3.85%</b>	<b>3.32%</b>	<b>3.06%</b>	<b>2.81%</b>	<b>2.55%</b>	<b>2.29%</b>
nominal risk free rate for CoE	4.00%	3.95%	2.50%	1.28%	1.28%	1.28%	1.28%	1.28%
market risk premium	5.00%	5.00%	5.00%	5.05%	5.05%	5.05%	5.05%	5.05%
asset beta	0.41	0.42	0.35	0.43	0.42	0.41	0.40	0.39
equity beta	0.86	0.81	0.61	0.75	0.73	0.72	0.70	0.68
<b>Nominal Cost of Equity</b>	<b>8.30%</b>	<b>8.00%</b>	<b>5.55%</b>	<b>5.07%</b>	<b>4.97%</b>	<b>4.92%</b>	<b>4.82%</b>	<b>4.72%</b>
gearing assumption	60%	55%	50%	50%	50%	50%	50%	50%
tax rate	25.5%	25.5%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
<b>Nominal WACC pre-tax</b>	<b>7.3%</b>	<b>7.8%</b>	<b>5.6%</b>	<b>5.04%</b>	<b>4.84%</b>	<b>4.68%</b>	<b>4.49%</b>	<b>4.29%</b>
inflation	1.75%	1.55%	2.00%	0.90%	1.03%	1.16%	1.29%	1.42%
<b>Real WACC pre-tax</b>	<b>5.5%</b>	<b>6.2%</b>	<b>3.6%</b>	<b>4.10%</b>	<b>3.77%</b>	<b>3.48%</b>	<b>3.16%</b>	<b>2.83%</b>

(1) The calculation for the 2017-21 period reflects the amended Method Decisions published in January 2019. (2) The real WACC pre-tax for the 2017-21 regulatory period under the original Method Decisions declined from 4.3% in 2016 to 3.0% in 2021.

Source: ACM, Moody's Investors Service

### Amendment to the Method Decisions has a neutral impact over the period

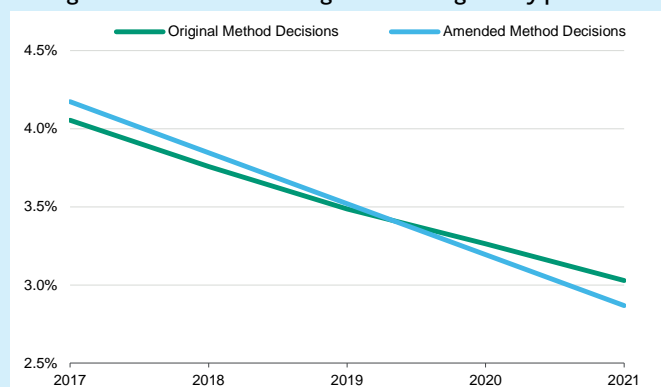
All DSOs appealed the Method Decisions published in September 2016 to the Trade and Industry Appeals Tribunal (Cbb), which annulled the Method Decisions on 24 July 2018 and ruled that:

- » one of the comparators used in the peer group to compute the asset beta (Fluxys) should be removed, impacting the asset beta and in turn the allowed equity return
- » net debt rather than gross debt should be used when assessing gearing, primarily affecting the assumed gearing level (net debt is lower than gross debt and, since allowed equity returns are higher than the allowed cost of debt, this would increase allowed returns) but also the asset beta and, in turn, the equity beta and allowed equity return

On 24 January 2019, the ACM published amended Method Decisions for Dutch network operators for the 2017-21 regulatory period with, as Exhibit 7 shows, the average WACC for the regulatory period unchanged. This reflects that whilst the regulator incorporated the Cbb recommendations it updated the reference period for calculating one component, the asset beta, of the closing (2021) WACC, which resulted in the 2021 WACC being lower by 20 basis points (the same amount that the opening [2016] WACC was higher).

Exhibit 7

#### Average allowed return unchanged for the regulatory period as a result of the new Method Decisions



Sources: ACM, Moody's Investors Service calculation

Typically, when new Method Decisions are published, the full change in allowed revenues over the regulatory period to-date is reflected in tariffs at the first opportunity, i.e. in 2020 tariffs for the years from 2017-20 inclusive, with the change in subsequent years, here 2021, reflected in those tariffs. Whilst the change in the profile of allowed returns, and thus allowed revenues, resulting from the new Method Decisions would result in a slight reduction of total allowed revenue over the regulatory period, we expect no change in total allowed revenues for distribution network operators as an appellant cannot be worse off than if they had not appealed (the 'reformation in peius' principle) and network operators were the only party this aspect of the Method Decisions.

### Almost three years into the regulatory period and the Method Decisions are still subject to appeal

All the Dutch network operators subsequently appealed the allowed returns element of the amended Method Decisions. The Cbb has decided that no hearing is required (we understand the ACM will now provide no new defense) and we now expect a decision to be forthcoming before the end of this year.

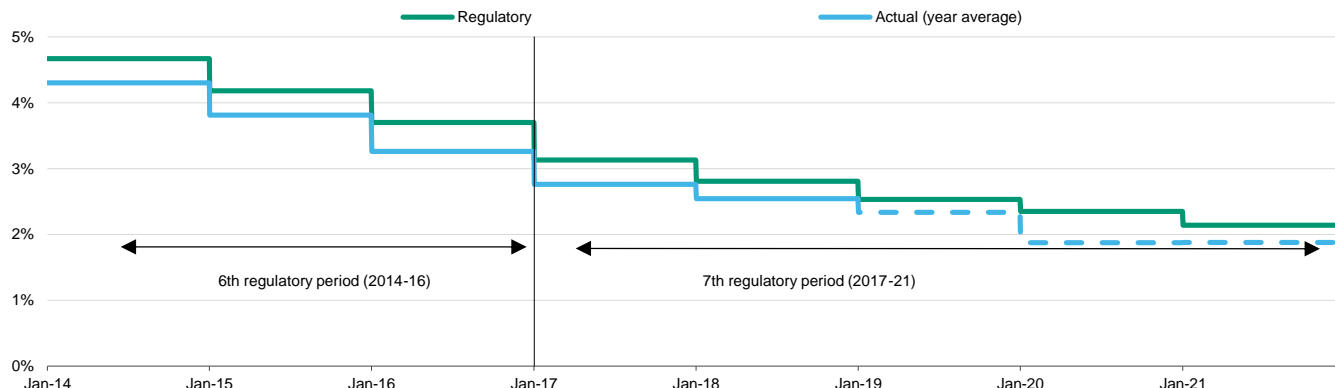
On an estimated RAB averaging over €7 billion over the current regulatory period, a 0.1% per annum increase in allowed returns would result in over €35 million of allowed revenue over the period, slightly under 2% of Alliander's net debt at December 2018.

**Consistent outperformance against regulatory cost of debt allowances has partially offset impact of lower allowed returns**

The reduction in allowed returns is less material than for the 2014-16 regulatory period where it fell from 6.2% to 3.6% (both pre-tax, real) in linear steps. Alliander has demonstrated its ability to operate within the bounds of the regulatory return allowance and to fund comfortably within the cost of debt assumed by the regulator.

Exhibit 8

**Alliander expected to continue outperforming regulatory allowances for cost of debt**  
**Evolution of regulatory cost of debt allowances and Alliander's average cost of debt (all figures in nominal terms)**



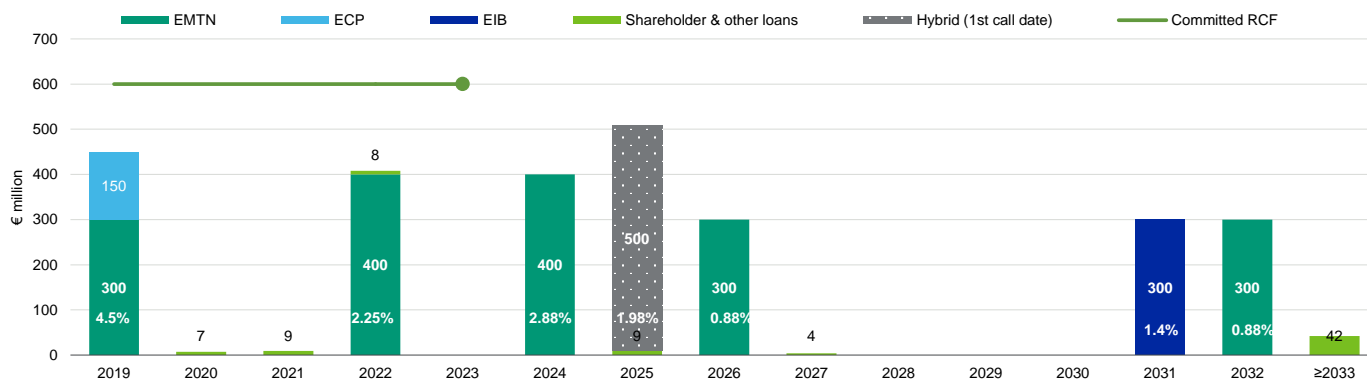
(1) Transaction costs excluded (regulatory cost of debt allowance has included 15 basis points per annum for these in both the current and prior regulatory period). (2) Alliander's actual cost of debt based on interest on loans from third parties, i.e. excluding lease obligations, including 50% of the hybrid securities (reported as equity in the accounts).

Source: ACM, Company reports and Moody's Investors Service

We expect Alliander's cost of external debt to remain within the allowed cost for the period, supported by ongoing refinancing and new funding for its investment programme. In June 2019, Alliander issued its second green bond and the coupon saving compared to the December 2019 maturity (also €300 million) is 3.625% which, we estimate, will result in around a 0.4 percentage point reduction in average cost of debt on a full year basis (based on 2020 estimated debt). We note Alliander's next two most expensive pieces of long-term debt mature towards the start of the next regulatory period, which help will mitigate the further anticipated step-down in cost of debt in the next regulatory period

Exhibit 9

**Alliander has a well-spread debt maturity profile with most expensive embedded debt all maturing by 2024**  
**Repayment schedule of interest-bearing debt at 30 June 2019**



(1) Excludes €216 million in lease obligations

Source: Company reports

The regulator also imposes a series of cost-efficiency targets on the networks, which, combined with the allowed return, determine the so-called X-factor, currently set at 1.9% for electricity and 1.42% for gas annually for Alliander (the lowest for both fuels amongst the DSOs; 2.07% and 1.61% were the unweighted sector average for electricity and gas respectively). While base costs were reset on the

basis of average efficient costs in the 2013-15 period, resulting in an increase in the overall revenue allowance for 2017-21, the forward-looking operating efficiency targets embedded in the X-factor may still prove challenging.

### National energy transition plan raises capital spending and brings challenges for the next regulatory period

The Netherlands has committed to very ambitious decarbonisation objectives. A Climate Law was approved in Parliament 2019 and the Final Climate Agreement (Klimaataakkoord) was presented in 28 June 2019. The Climate Agreement aims to reduce CO<sub>2</sub> emissions in the Netherlands by 49% by 2030 and by 95% by 2050 (both compared to 1990 levels) and make all generation of electricity carbon neutral.

Alliander estimates that this will require additional investments (excluding replacement and maintenance investment) of €1.3 billion for Liander by 2030, i.e. a €130 million per annum increase in its electricity grid infrastructure investment to facilitate delivery at the national level of:

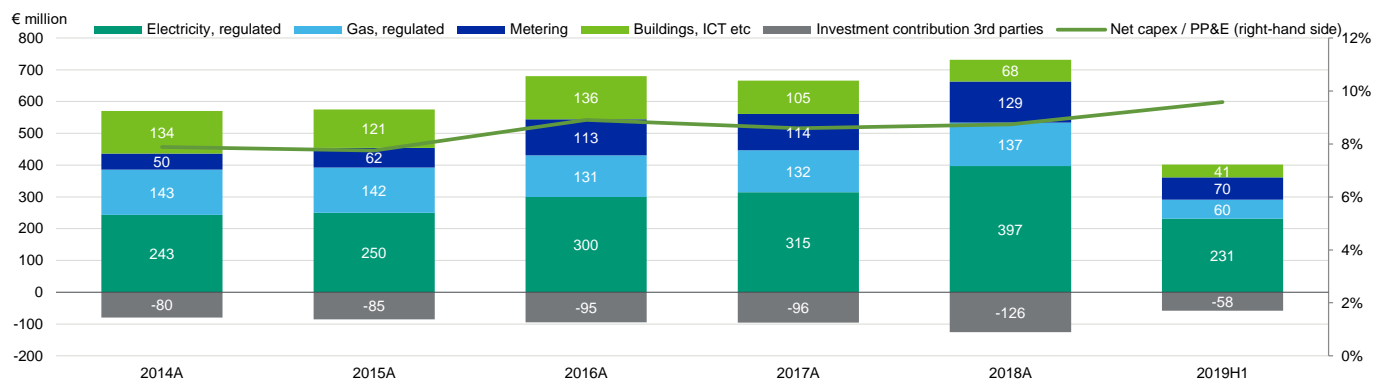
- » 70% renewable electricity by 2030 (a fivefold increase) with Regional Energy Strategies determining the location and infrastructure - the DSOs would connect the local renewable generation, primarily solar and onshore wind, and reinforce the grid;
- » New heating systems for 1.5 million households in 2030, with municipalities taking the lead - Regional Energy Strategies will be published by end 2021 but we expect the DSOs to play a key role in installing heat grids (Alliander has already built one in Zaanstad)
- » Up to 1.8 million charging points for electric vehicles by 2030 - the large growth in electric vehicles would require significant reinforcement of the grid by the DSOs

Alliander believe their main challenge is to prevent the energy infrastructure becoming a bottleneck in the energy transition. There is already a material shortage of qualified engineers in the sector and the shortage of grid capacity has led to some delay in connecting renewables to the grid.

Consequently, we expect the energy transition will result in further increases in Alliander's capex programme which has grown appreciably since 2015, from around €570 million per annum (gross of customer contributions) to over €700 million in 2018 primarily due to the smart meter roll-out that started in 2015. By 2020 all of Alliander's customers have to be offered a smart meter and the company is on track to meet this objective - 83% of its customers had been offered one by the end of September 2019.<sup>1</sup>

Exhibit 10

### Alliander's capex levels have increased in recent years with the smart meter roll-out; however, likely to increase further with facilitating delivery of the Climate Agreement



Source: Company reports, Moody's Investors Service

### Energy transition will necessitate changes to the regulatory framework

As illustrated by the cancellation of the requirement to provide compulsory gas connections to new residential areas, the Netherlands is moving away from natural gas towards to more sustainable sources of energy, which raises the risk of stranded assets for gas networks. The ACM is considering its impact on gas networks' allowed revenue for the next regulatory period, commencing January

2022, through the Morgan project and should start a consultation process on this subject in 2020. In parallel, the ACM is conducting analyses on alternative uses of the gas network, such as green gas and hydrogen.

The two main elements of a regulatory determination that will affect a network company's financial profile are allowed returns (which we expect could average c. 3% on a nominal pre-tax basis, compared to 4.9% in the current regulatory period, in the next period, assuming the existing methodology and based on prevailing market rates) and regulatory cost allowances (including cost efficiency assumptions). However, given the energy transition, how declining connections to the gas grid and how the exponential increase in renewable energy is managed will be of increased importance in the next regulatory period. Given that a number of Acts are likely to be consulted on next year (Energy Act 1.0, Heat Act 2.0, Hydrogen and Enabling Measures for the Climate Agreement), we expect the next regulatory period may be shorter (it has to be between 3 and 6 years) to cope with this uncertainty. The official consultation process for the next regulatory period commenced in September 2019 but draft Method Decisions, when we will see details of key parameters, are not expected before the first half of 2021.

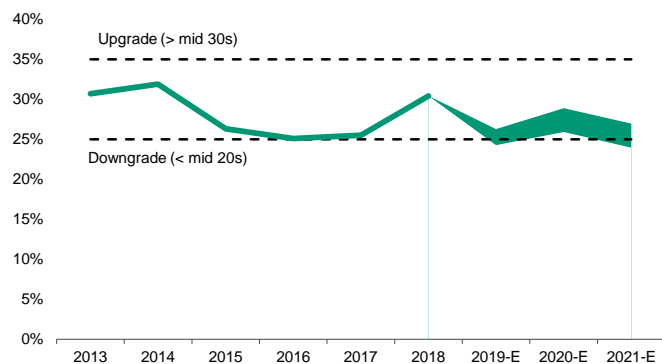
### Very modest leverage, compared with peers, supports strong standalone credit quality

Like its closest peer [Enexis Holding N.V.](#) (Aa3 stable), Alliander exhibits a strong financial profile with very modest financial leverage compared with the wider European peer group of energy network companies (see Exhibit 1). Over the coming years, we expect Alliander's financial profile to weaken, with the reduction in allowed returns (itself a reflection of the continued low interest rate environment) and increasing investment requirements to support delivery of the country's energy transition.

Nevertheless, overall leverage will remain modest in the wider European context. We forecast Alliander will maintain FFO / Net Debt of at least 25% and Net Debt / Fixed Assets around, or only slightly above, 30% until the end of the current regulatory period. The robust financial profile is also supported by a prudent dividend policy, with a payout ratio of around 45%.

Exhibit 11

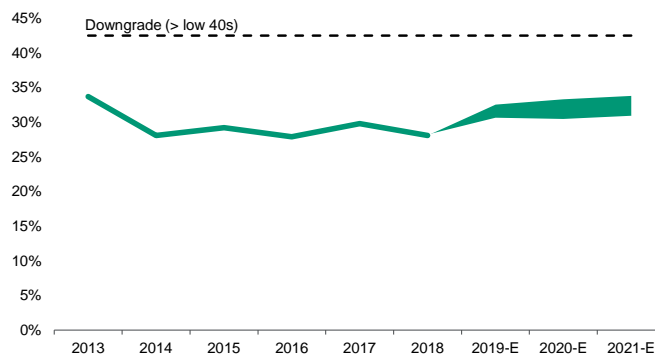
**We expect cash flow based metrics to weaken slightly with lower allowed returns and higher investments**  
**FFO / Net Debt against ratio guidance for the a1 BCA**



Source: Moody's Investors Service

Exhibit 12

**... but Alliander to maintain material modest levels of leverage**  
**Net Debt / Fixed Assets against ratio guidance for the a1 BCA**



Source: Moody's Investors Service

We note that cash flow based metrics over the 2020-21 period may be depressed by a one-off impact pertaining to TenneT TSO B.V.'s (TenneT, the national electricity transmission system operator (owned by [TenneT Holding B.V.](#) [A3 stable]) tariff proposal for 2020. Under TenneT's tariff proposal for 2020, which the ACM will opine on before the end of this year, Liander will pay additional charges of €93 million (4.6% of Alliander's net debt at December 2018). If ratified, whilst Liander can pass through these additional costs (including interest) to consumers it can only do so with the usual two year lag. Our ratio guidance for Alliander is based on underlying not reported metrics.

### Final rating incorporates two notches of rating uplift

Given its 100% ownership by Dutch provinces and municipalities, Alliander falls within the scope of our [rating methodology for government-related issuers](#), published in June 2018.

Alliander's Aa2 rating incorporates a two-notch uplift from its stand-alone credit quality, expressed as a baseline credit assessment (BCA) of a1, reflecting a strong probability of extraordinary financial support being provided by its owners, if ever required, the largest of which is the Province of Gelderland with around 45%. Although ownership of Alliander is relatively fragmented among 77 provinces and municipalities, our assumption of strong support reflects (1) the importance of Alliander's network operations for the regional economy; (2) the fact that the four largest provinces together hold 76% of the company's shares; and (3) the strong governance framework in the Netherlands with oversight by the national government.

Our assessment of very high default dependence reflects Alliander's significant exposure to the Dutch economy, as almost all of the company's revenues and cash flows are generated from domestic activities.

In addition, the Dutch government's ambitious decarbonisation agenda increases the strategic importance of Alliander to its owners, as the central government increasingly sees municipalities as partners in the energy transition.

### Liquidity analysis

We assess Alliander's liquidity position as strong over the period to December 2020. Alliander's principal sources of liquidity include (1) the strong and predictable cash flow generated from its regulated network activities (around €1 billion over July 2019 - December 2020 we estimate); (2) its sizeable cash and cash equivalents balance, €329 million as of 30 June 2019; and (3) its committed €600 million revolving credit facility, fully undrawn as of 30 June 2019, now maturing in July 2023. We believe these sources will be sufficient to cover (1) upcoming debt maturities over this period, principally the €300 million 4.5% bond maturing in December 2019 and the €150 million of outstanding debt under its European commercial paper programme as of 30 June 2019; and (2) dividend and capex requirements totalling around €0.8 billion in 2020. Alliander benefits from a well-spread debt maturity profile, see Exhibit 9 above, reducing refinancing risk.

Alliander has exposure to contingent liabilities represented by three cross-border leasing (CBL) arrangements. In the case of an unscheduled early termination of all of these CBLs at the same time this could give rise to a total exposure (maximum strip risk) of US \$154 million as of 30 June 2019. According to the conditions of some of the CBLs, the company would need to post additional letters of credit if its ratings were to drop below certain minimum levels. We note that the company can access its €600 million revolving credit facility to cover potential financing needs stemming from the CBLs.

## Rating methodology and scorecard factors

Alliander is rated in accordance with the rating methodologies for [Regulated Electric and Gas Networks](#), published in March 2017, and [Government-Related Issuers](#), published in June 2018.

Exhibit 13

### Alliander N.V. - Rating Grid

	Current 12/31/2018		Moody's 12-18 Month Forward View As of November 2019 [3]	
Regulated Electric and Gas Networks Industry Grid [1][2]	Measure	Score	Measure	Score
<b>Factor 1 : Regulatory Environment and Asset Ownership Model (40%)</b>				
a) Stability and Predictability of Regulatory Regime	Aa	Aa	Aa	Aa
b) Asset Ownership Model	Aa	Aa	Aa	Aa
c) Cost and Investment Recovery (Ability and Timeliness)	A	A	A	A
d) Revenue Risk	Aa	Aa	Aa	Aa
<b>Factor 2 : Scale and Complexity of Capital Program (10%)</b>				
a) Scale and Complexity of Capital Program	Baa	Baa	Baa	Baa
<b>Factor 3 : Financial Policy (10%)</b>				
a) Financial Policy	A	A	A	A
<b>Factor 4 : Leverage and Coverage (40%)</b>				
a) FFO Interest Coverage (3 Year Avg)	10.0x	Aaa	12x - 17x	Aaa
b) Net Debt / Fixed Assets (3 Year Avg)	28.6%	Aaa	30% - 34%	Aa
c) FFO / Net Debt (3 Year Avg)	27.1%	Aa	25% - 28%	Aa
d) RCF / Net Debt (3 Year Avg)	21.8%	Aa	19% - 23%	Aa
<b>Rating:</b>				
Scorecard-indicated Outcome from Grid Factors 1-4		Aa3		Aa3
<b>Rating Lift</b>		<b>0</b>		<b>0</b>
a) Scorecard-indicated Outcome from Grid		Aa3		Aa3
b) Actual BCA Assigned				a1
<b>Government-Related Issuer</b>				<b>Factor</b>
a) Baseline Credit Assessment				a1
b) Government Local Currency Rating				n/a
c) Default Dependence				Very High
d) Support				Strong
e) Final Rating Outcome				Aa2

Note: [1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations; [2] As of 31 December 2018; [3] This represents Moody's forward view for 2019 and 2020; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Financial Metrics <sup>TM</sup>

## Appendix

Exhibit 14

## Peer comparison table

(in EUR million)	Alliander N.V. Aa2 Stable (a1 BCA)			Enexis Holding N.V. Aa3 Stable (a2 BCA)			Fingrid Oyj A1 Stable (a2 BCA)			N.V. Nederlandse Gasunie A1 Stable (a3 BCA)			Gas Networks Ireland A3 Stable (a3 BCA)		
	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	FYE
	Dec-17	Dec-18	Jun-19	Dec-17	Dec-18	Jun-19	Dec-17	Dec-18	Jun-19	Dec-17	Dec-18	Jun-19	Dec-16	Dec-17	Dec-18
Revenue	1,797	1,920	1,920	1,398	1,445	1,465	672	853	831	1,241	1,247	1,258	498	473	487
EBITDA	658	753	762	725	760	743	269	300	224	793	777	807	333	311	307
Total Debt	2,166	2,156	2,546	2,607	2,416	2,633	1,110	1,085	1,133	3,787	3,841	3,869	1,492	1,412	1,355
Net Debt	2,066	2,017	2,217	2,321	2,385	2,554	1,026	1,000	1,037	3,746	3,814	3,823	1,431	1,361	1,238
Net Property Plant and Equipment	6,925	7,182	7,323	7,040	7,318	7,471	1,702	1,659	1,640	8,600	8,666	8,697	2,571	2,578	2,577
(FFO + Interest Expense) / Interest Expense	9.7x	11.9x	11.7x	10.0x	9.7x	10.0x	13.2x	15.0x	12.7x	8.9x	8.6x	10.0x	6.9x	12.0x	12.1x
Net Debt / Fixed Assets	29.8%	28.1%	30.3%	33.0%	32.6%	34.2%	60.3%	60.3%	63.2%	43.6%	44.0%	44.0%	55.7%	52.8%	48.1%
FFO / Net Debt	25.5%	30.4%	26.0%	24.4%	24.8%	22.7%	21.5%	24.2%	18.9%	19.0%	17.3%	20.6%	18.8%	18.9%	20.3%
RCF / Net Debt	20.1%	25.1%	19.2%	19.9%	20.4%	18.0%	11.9%	6.9%	2.4%	16.0%	10.5%	14.7%	16.4%	15.4%	16.3%

FYE = Financial Year-End. LTM = Last Twelve Months.

Source: Moody's Financial Metrics™. All figures are calculated using Moody's estimates and standard adjustments.

Exhibit 15

## Alliander's debt adjustment breakdown

(in EUR million)	FYE Dec-14	FYE Dec-15	FYE Dec-16	FYE Dec-17	FYE Dec-18	LTM Jun-19
<b>As Reported Total Debt</b>	1,920	1,830	1,732	1,934	1,955	2,441
Leases	104	112	104	132	110	0
Hybrid Securities	248	248	248	248	248	248
Non-Standard Public Adjustments	(144)	(162)	(168)	(148)	(156)	(143)
<b>Moody's Adjusted Total Debt</b>	2,128	2,028	1,916	2,166	2,156	2,546
Cash & Cash Equivalents	(351)	(114)	(63)	(100)	(139)	(329)
<b>Moody's Adjusted Net Debt</b>	1,777	1,914	1,853	2,066	2,017	2,217

FYE = Financial Year-End. LTM = Last Twelve Months.

Source: Moody's Financial Metrics™. All figures are calculated using Moody's estimates and standard adjustments.

Exhibit 16

## Alliander's FFO adjustment breakdown

(in EUR million)	FYE Dec-14	FYE Dec-15	FYE Dec-16	FYE Dec-17	FYE Dec-18	LTM Jun-19
<b>As Reported Funds from Operations (FFO)</b>	545	473	353	496	630	603
Leases	23	25	23	19	18	9
Hybrid Securities	(8)	(8)	(8)	(8)	(5)	(5)
Alignment FFO	(30)	2	72	0	(12)	(13)
Non-Standard Public Adjustments	37	12	26	21	(17)	(17)
<b>Moody's Adjusted Funds from Operations (FFO)</b>	567	503	465	528	614	577

FYE = Financial Year-End. LTM = Last Twelve Months

Source: Moody's Financial Metrics™. All figures are calculated using Moody's estimates and standard adjustments

Exhibit 17

## Alliander N.V.

## Selected historical adjusted financials

(in EUR million)	FYE Dec-14	FYE Dec-15	FYE Dec-16	FYE Dec-17	FYE Dec-18	LTM Jun-19
<b>INCOME STATEMENT</b>						
Revenue	1,594	1,540	1,584	1,797	1,920	1,920
% Change in Sales (YoY)	-8.6%	-3.4%	2.9%	13.4%	6.8%	3.1%
EBITDA	745	634	559	658	753	762
EBITDA margin %	46.7%	41.2%	35.3%	36.6%	39.2%	39.7%
EBIT	470	335	213	314	396	393
EBIT margin %	29.5%	21.8%	13.5%	17.5%	20.6%	20.5%
Interest Expense	87	76	63	60	56	54
Net income	331	243	279	195	250	224
<b>BALANCE SHEET</b>						
Cash & Cash Equivalents	351	114	63	100	139	329
Current Assets	651	406	400	517	555	792
Net Property Plant and Equipment	6,322	6,565	6,633	6,925	7,182	7,323
Non-Current Assets	7,116	7,373	7,439	7,684	7,900	8,027
Total Assets	7,776	7,838	7,839	8,201	8,455	8,819
Current Liabilities	730	997	584	762	873	1,008
Total Debt	2,128	2,028	1,916	2,166	2,156	2,546
Non-Current Liabilities	3,715	3,307	3,639	3,745	3,700	3,966
Total Liabilities	4,445	4,399	4,223	4,507	4,573	4,974
Total Equity	3,331	3,439	3,616	3,694	3,882	3,846
Total Liabilities and Equity	7,776	7,838	7,839	8,201	8,455	8,819
<b>CASH FLOW</b>						
Funds from Operations (FFO)	567	503	465	528	614	577
Cash Flow From Operations (CFO)	638	529	390	465	651	625
Capital Expenditures	-515	-515	-604	-589	-623	-672
Retained Cash Flow (RCF)	434	371	373	416	506	425
Free Cash Flow (FCF)	-10	-118	-306	-236	-80	-199
FFO / Net Debt	31.9%	26.3%	25.1%	25.5%	30.4%	26.0%
RCF / Net Debt	24.4%	19.4%	20.1%	20.1%	25.1%	19.2%
FCF / Net Debt	-0.6%	-6.2%	-16.5%	-11.4%	-4.0%	-9.0%
<b>INTEREST COVERAGE</b>						
(FFO + Interest Expense) / Interest Expense	7.5x	7.7x	8.4x	9.7x	11.9x	11.7x
<b>LEVERAGE</b>						
Debt / EBITDA	2.9x	3.2x	3.4x	3.3x	2.9x	3.3x
Debt / Book Capitalization	39.0%	37.1%	34.6%	36.9%	35.7%	39.8%

FYE = Financial Year-End. LTM = Last Twelve Months

Source: Moody's Financial Metrics™. All figures are calculated using Moody's estimates and standard adjustments.

## Ratings

Exhibit 18

<b>Category</b>	<b>Moody's Rating</b>
<b>ALLIANDER N.V.</b>	
Outlook	Stable
Issuer Rating	Aa2
Senior Unsecured -Dom Curr	Aa2
Jr Subordinate -Dom Curr	A2
ST Issuer Rating	P-1
<b>ALLIANDER FINANCE B.V.</b>	
Outlook	Stable
Bkd Senior Unsecured -Dom Curr	Aa2

Source: Moody's Investors Service

## Endnotes

- <sup>1</sup> Alliander's target is to offer 585,000 addresses smart meters in 2019 (644,000 addresses were offered a smart meter in 2017), and by end June 2019 it had offered meters to 365,000 addresses.

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