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TenneT Holding B.V.

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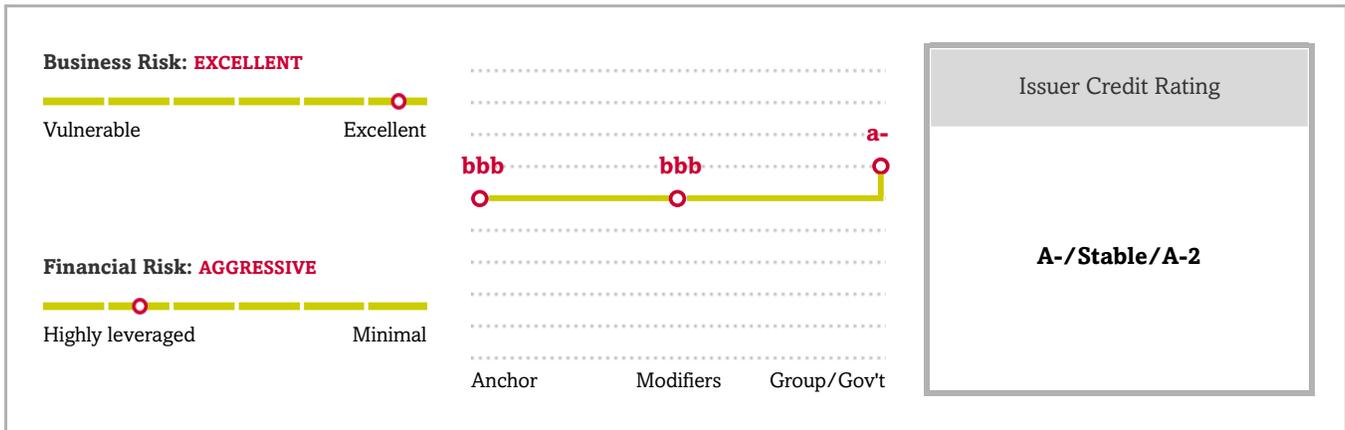
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TenneT Holding B.V.



Credit Highlights

Overview

Key strengths

Almost all revenues is derived from low-risk transmission activities in supportive regulatory regimes.

Significant growth prospects reflecting the large investment program, which will increase the regulatory asset base (RAB).

Dutch state's ownership provides ongoing credit support via equity contributions, expected in extraordinary circumstances.

Key risks

Pressure on profitability stemming from regulatory period resets and ongoing funding needs that weigh on credit metrics.

Very high capital expenditure (capex) tied to the network development plan (NDP), with limited flexibility, requiring significant financing and ongoing equity contributions.

Material negative free cash flows after capex and dividends.

TenneT operates under strong regulatory frameworks for transmission in Germany and the Netherlands. We view the company's regulated activities as more resilient to the economic effects of COVID-19 and oil price shock than most other companies. This reflects the relative predictability and stability of regulated earnings under TenneT's regulatory frameworks, although we acknowledge that lower electricity transport volumes during economic downturns can delay regulatory remuneration as measured by IFRS-accounted revenue. Furthermore, a delay in capex would slow RAB and hence regulated earnings growth. However, in the near term, this could constitute a welcome additional liquidity buffer. In our base-case scenario, we do not foresee any disruption to network operations or any risks related to continuity of supply as per TenneT's contingency plans to manage such a disruption. In addition, we observe wide political consent in Europe to protect critical infrastructure.

During demand shocks, prudent liquidity planning remains crucial for TenneT. Given that its heavily regulated investments and related expenditures are recovered via regulated tariffs with some delay, liquidity is a key consideration for TenneT. It is even more important during a sudden market downturn. This is because lower-than-expected transport electricity volumes lead to lower renewable energy subsidy collections from consumers (EEG levy; EEG ["Erneuerbare Energy Gesetz"]). Also, significantly lower-than-expected power prices in Germany are increasing the market premium (the difference between wholesale power prices and the subsidy level to be made to renewable generators) that German transmission system operators (TSOs) need to advance to renewable generators. That said, we understand that, to date, TenneT has not experienced a significant drop in electricity transport volumes. We estimate TenneT's EEG account will move to about negative €1.0 billion in second-half 2020 from positive €600 million at end-2019. We do not view this as a key risk because TenneT is sufficiently covering its liquidity needs, e.g. via its cash position and green revolving credit facility (RCF) of €3.3 billion. We note all EEG financing cost will be

recovered under the EEG levy itself.

European energy transition is driving TenneT's business growth, while increasing the company's operating challenges.

As the largest of four electricity TSOs in Germany and the national electricity TSO in the Netherlands, TenneT is in a pivotal position to facilitate these two countries' as well as wider Europe's transition to a decarbonized economy by 2050. The transition necessitates network development to accommodate renewable energy integration and the expansion of cross-border capacities to neighbouring TSOs. As such, TenneT's primary mandate to fulfil security of supply while maintaining affordability is becoming increasingly challenging amid the energy system's shift toward more-decentralized and volatile modes of generation. Within TenneT's network, physical current flows need to remain in line with a commercial balance of feed-in and offtake, while keeping a stable frequency of 50 hertz at all times and everywhere on the grid.

TSOs are having to do an increasing amount of grid balancing as well as implementing congestion counter-measures given stable feed-in base-load capacity (the minimum electric power delivered or required over a given period at a steady rate) from the likes of coal and nuclear power plants is fading against an increasing share of weather-dependent volatile renewable electricity generation. Further network development and reinforcement will help but the effects will not be felt until such infrastructure is built and commissioned. We note that the permit process is typically long-lived and lacks social acceptance, and there is an increased likelihood of over-investing. As such, we view positively TenneT's focus on affordability and educating and advocating for increased cooperation between DSOs to unlock flexibility at local decentralized levels, as well as via cross-zonal cooperation between European TSOs.

The EU's Clean Energy Package ("Green Deal") adds to the operating challenges of introducing a new cross-border power-market framework. With its goal of electricity market integration and wholesale energy market harmonization, the EU is introducing a minimum threshold of 70% of thermal generation capacities available for trade (adjusted for contingencies) at cross-border interconnectors. This will force European TSOs to exercise even more corrective measures for grid stability by other means--such as flexible thermal power plants--no later than 2025.

TenneT has mainly resolved congestion issues by cross-border electricity interactions with neighbouring TSOs or via loop-flows. As such, the introduction of binding minimum interconnector capacities for cross-zone trade could come at the cost of more expensive and likely more GHG-emission-intensive re-dispatch measures. The cost of power-market interconnectivity across Europe would be borne by consumers in service areas with greater structural congestion, a fact that could discourage TSOs from investing in interconnectors. To accommodate the new European energy policy framework and to hopefully avoid having to step-up congestion measures, the governments of TenneT's two service areas--the Netherlands and Germany--identified an action plan to achieve 70% on-market capacity on all critical network segments throughout each country no later than by 2025. Average cross-border interconnector capacities for trade are at around 30% currently according to ACER. We understand that the alternative--splitting bidding zones--would likely be politically and socially unacceptable to these jurisdictions.

As European and national climate goals are intensifying, so is TenneT's capex program. TSOs' investment plans incorporate the continuously changing national climate ambitions. The regulator Bundesnetzagentur approved the updated "German 2019–2030 Network Development Plan" (NDP 2030) in December 2019--a plan that aims to meet Germany's renewable energy target of 65% of gross energy consumption by 2030 and manage the long-term effects of Germany exiting from coal by 2038. NDP 2030 adds about an additional 3,600 kilometres of transmission lines. The plan foresees TenneT connecting 20 GW of German offshore wind power capacity in the North and Baltic Seas by 2030, instead of the previous goal of 15 GW. In 2019, TenneT had already exceeded Germany's 6.5 GW expansion target via 12 grid connections with more than 7 GW offshore wind capacity. Besides the existing large-scale projects under construction--namely the 2x2 GW SuedLink and the 2x2 GW SuedOstLink connection--NDP 2030 mandates an additional high-voltage 2 GW direct-current transmission corridor to transport electricity from Germany's northern

offshore wind turbines further south to the main consumption regions. In TenneT's Dutch service area, additional investments measures are being driven by the need to enhance and update the 380 kV onshore grid ring structure, enable new offshore connections, and expand cross border transport capabilities.

Extensive investment needs render TenneT dependent on ongoing government support and capital markets access. The company announced an estimated capital contribution need of €2 billion–€3 billion over the coming four years starting 2020. In a letter to the Dutch parliament in September 2019, the Dutch Minister of Finance and Minister of Economic Affairs offered alternatives to raising equity, including: direct equity contributions from the state; a partial sale of TenneT to a private party; or a cooperation with the German state. We understand the latter is the preferred option because the two countries would jointly shoulder the investment burden--as well as benefiting from said investment--and it facilitates Europe's energy transition. We view the second option as unlikely because, under Dutch law, a sale to a private party could only be for a disposal of up to 25% ownership to a geographically adjacent TSO, and that party would need to agree to a cash settlement as opposed to a share exchange deal in order to provide the necessary funds. TenneT receives ongoing support from the government through a lower dividend payout than for peers (35%) and equity contributions totalling about €1.2 billion over 2017-2019 (about €700 million received in 2019) to finance projects. In 2011 and 2012, TenneT received cumulative equity injections at the corporate level of about €600 million.

Outlook: Stable

Our outlook on Netherlands-based power grid operator TenneT is stable because we do not expect operating conditions for power transmission in the Netherlands and Germany to change in the coming years. In particular, our base case assumes that TenneT's direct owner, the Dutch Ministry of Finance, would consent to lower dividends to mitigate an unexpected increase in the company's already high leverage. Overall, we continue to see a moderately high likelihood of TenneT receiving extraordinary support from the Dutch government in the event of financial distress. Our assessment of TenneT's stand-alone credit profile (SACP) also takes into account the government's ongoing support, such as ongoing capital contributions.

We assume that TenneT's large planned investments and lower regulated returns will weaken its credit metrics in the coming years. However, we expect they will remain commensurate with the ratings.

Downside scenario

We could lower the ratings if TenneT's SACP deteriorates to 'bbb-' or lower. This could result from adverse changes to either country's regulatory framework that materially affected the stability of TenneT's cash flows or profitability.

We would also downgrade TenneT if its S&P Global Ratings-adjusted ratio of funds from operations (FFO) to debt declines and stays below 6%. This could occur if, for example, TenneT's capex increases further, without offsetting measures, or if there are unexpected delays or cost overruns on existing projects that are not covered by regulated tariffs.

If the Dutch government seems less likely to support TenneT, we could lower our rating on TenneT. However, a one-notch downgrade of the Netherlands would not trigger a downgrade of TenneT if TenneT's stand-alone credit quality did not weaken.

Upside scenario

We see the likelihood of an upgrade as remote in light of TenneT's extensive investment program, which will lead to a material increase in debt by 2020 and weaken debt coverage ratios over the medium term. That said, we would consider revising the SACP upward if TenneT demonstrates that it can sustain adjusted FFO to debt of more than 10%, while maintaining negative FOCF to debt no lower than 10%, assuming its business risk does not increase.

We would also consider upgrading TenneT, assuming an unchanged SACP, if we believed that the likelihood of extraordinary support from the Dutch government had materially strengthened, although we consider this unlikely in the near term because of the high proportion of TenneT's capex in Germany.

Our Base-Case Scenario

| Assumptions | Key Metrics | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--------|----------|---------|--|-------|-------|-------|-------|------------------|-----|-----|------|------|---------------|------|------|----------|-----|----------------|-------|--------|---------|---------|
| <ul style="list-style-type: none"> Gradual weakening of financial metrics due to reduced regulatory returns on investments in Germany from 2019 and due to gradually reducing WACC allowance in The Netherlands. <p>German regulated:</p> <ul style="list-style-type: none"> Return on equity (ROE) of 5.12% (assets commissioned before January 2006) and 6.91% (new assets). Sectoral efficiency factor (xgen; productivity target) of 0.9% for the five-year regulatory period starting 2019. Individual efficiency factor (xind of 99.92% for the five-year regulatory period starting 2019). <p>Dutch regulated:</p> <ul style="list-style-type: none"> In 2019, the Trade and Industry Tribunal (CBb) ruled in TenneT's favor regarding both the WACC (plus 20 basis points) and the ex-post settlement of offshore related operating expenditure (opex) costs. Regulated expected capital cost allowance (real pre-tax WACC) gradually decreasing to 3.0% in 2021 from 4.5% in 2016 for existing capital (before CBb decision starting at 4.3%); gradually decreasing to 3.0% from 3.8% over the same period for new investments (3.6%). Opex allowance for offshore assets revised to full cost recovery including preventive and corrective maintenance versus a lump sum of 1% as of 2019. Xind of 96.25% <p>Combined operations:</p> <ul style="list-style-type: none"> A steady rise in revenue as investments in the Netherlands and Germany increase the RAB by about 14% annually over the coming two years. We assume about €7 billion of capex over 2020 and 2021--about two-thirds of this in Germany and about 35% of total capex in off-shore connections. | <table border="1"> <thead> <tr> <th></th> <th>2018A</th> <th>2019A</th> <th>2020E</th> <th>2021E</th> </tr> </thead> <tbody> <tr> <td>EBITDA (bil. €)*</td> <td>1.7</td> <td>2.1</td> <td>N.A.</td> <td>N.A.</td> </tr> <tr> <td>FFO/Debt (%)*</td> <td>12.2</td> <td>14.4</td> <td>9.0-10.5</td> <td><10</td> </tr> <tr> <td>FOCF/Debt (%)*</td> <td>(9.8)</td> <td>(13.6)</td> <td>~(14.0)</td> <td><(16.0)</td> </tr> </tbody> </table> <p>A--Actual. E--Estimate. FFO--Funds from operations. FOCF--Free operating cash flow. N.A.--Not available. *S&P Global Ratings adjusted figures.</p> | | | | | 2018A | 2019A | 2020E | 2021E | EBITDA (bil. €)* | 1.7 | 2.1 | N.A. | N.A. | FFO/Debt (%)* | 12.2 | 14.4 | 9.0-10.5 | <10 | FOCF/Debt (%)* | (9.8) | (13.6) | ~(14.0) | <(16.0) |
| | 2018A | 2019A | 2020E | 2021E | | | | | | | | | | | | | | | | | | | | |
| EBITDA (bil. €)* | 1.7 | 2.1 | N.A. | N.A. | | | | | | | | | | | | | | | | | | | | |
| FFO/Debt (%)* | 12.2 | 14.4 | 9.0-10.5 | <10 | | | | | | | | | | | | | | | | | | | | |
| FOCF/Debt (%)* | (9.8) | (13.6) | ~(14.0) | <(16.0) | | | | | | | | | | | | | | | | | | | | |

- A dividend payout ratio of 35% of the underlying distributable profit, after income allocated to project investors and distributions to hybrid capital holders.

Base-case projections

On the back of COVID-19, we expect a moderate impact on investment progress and transport volumes. As nations close borders amid COVID-19 we expect TenneT to experience some delays to its current investment plan, translating into a completion rate of 90%-95% of planned capex for 2020. We understand that TenneT is not currently experiencing significant declines in electricity transport volumes. If it were to do so, however, we note that any income delay would be mitigated by 2020 compensation for lower transport volumes and increased congestion expenses in 2019. We do not consider any volume decline in our base case for 2020, acknowledging the temporary effect on earnings.

Regulatory remuneration in Germany is set to decline for the power transmission regulatory period starting in 2019. The German regulator Bundesnetzagentur (BNetzA) has reduced the ROE allowance by about 200 basis points, mainly due to the lower reference interest rate and the reduction of the risk premium (see "German Federal Court Overrules Electricity And Gas Utilities' Hopes For Regulatory Remuneration," published July 12, 2019, on RatingsDirect). BNetzA has issued its sectorial efficiency target (xgen) at 0.9% from 1.5% previously, reducing the productivity an efficient (xind = 100%) TSO is expected to achieve over the five-year regulatory period 2019-2023. German TenneT has a 99.92% xind efficiency score for the current period (97% as of the last one).

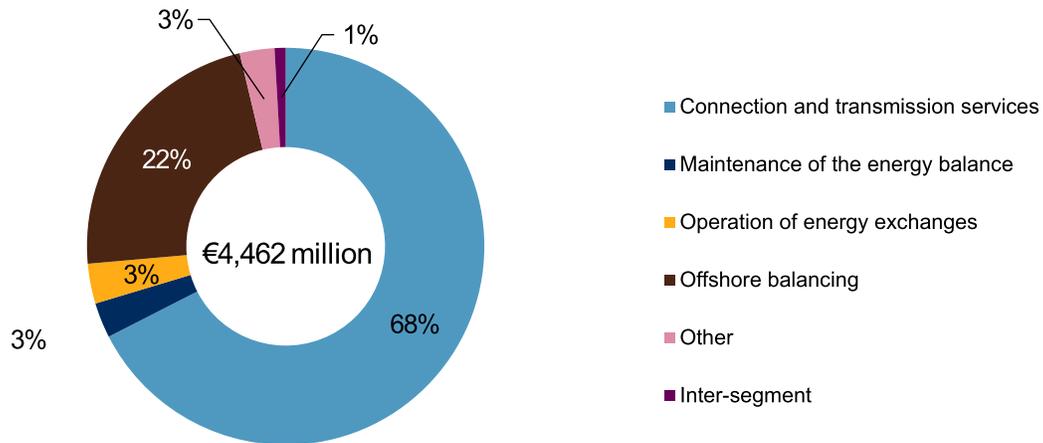
A lower regulatory operating expenditure (opex) allowance in German offshore and onshore operations is reducing TSO's ability to outperform. A change in Germany's remuneration calculation has put further pressure on German TSO's financial metrics. As of 2019, German offshore opex will be remunerated at actual cost, compared with a lump-sum allowance of 3.4% previously. This change was originally scheduled for 2018. Furthermore, for the construction phase of onshore wind "investment measures", the German regulator has reduced the opex lump sum to 0.2% from 0.8% (remaining at 0.8% for the post-construction phase). Both measures will reduce German regulated utilities' ability to outperform the cost allowance.

Company Description

TenneT is a leading European electricity TSO serving 42 million end-users in the Netherlands and Germany and 15 cross-border interconnectors through about 23,555 kilometers (km) of high voltage transmission lines. As such, the company's activities are under the oversight of the regulatory authorities in each jurisdiction, the Autoriteit Consument & Markt (ACM) in the Netherlands and Bundesnetzagentur (BNetzA) in Germany. The company generates annual turnover of about €4.4 billion and EBITDA of about €2.1 billion in FY2019 (about 73% in Germany); its asset book value totals €23.7 billion. TenneT is involved in limited non-regulated activities (about 5%) through its 50% stake in BritNed, a merchant cable operator (Anglo-Dutch interconnector), 17% stake in EPEX, a North West European electricity exchange, and 100% stake in Relined and NOVEC, two telecommunication infrastructure companies.

Chart 1

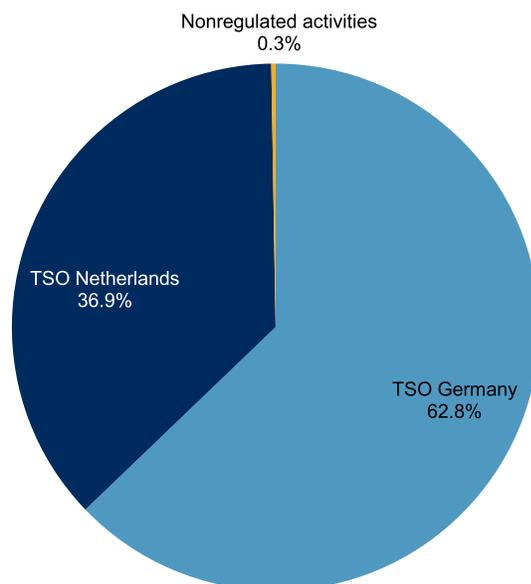
TenneT Disaggregated Revenues Split



Source: S&P Global Ratings.
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Chart 2

TenneT 2019 Investments Split



Source: TenneT annual report.
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Business Risk: Excellent

TenneT's business risk profile is supported by its position as the Netherlands' only electricity TSO and Germany's largest electricity TSO. The company generates the bulk of its revenues under the German and Dutch regulatory regimes (95% of EBITDA), which we view as supportive. TenneT is exposed to higher execution risks than other TSOs due to its very large capex plan, especially in Germany where the rapid growth of renewable energy necessitates significant investments in the onshore and offshore grids, creating a range of new challenges and risks. Over the next 10 years, S&P Global Ratings estimates TenneT will invest between €40 billion and €50 billion in onshore and offshore grid infrastructure in both countries--up from about €35 billion in our previous base case. These risks are partly offset by TenneT's good operating performance and track record so far. Further, the majority of German investments are deemed necessary for the energy transition, grid stability, and the international integration of the German network--which allow gas and electricity TSOs to fully recover growth and extraordinary expenditures on a pass-through basis.

Regulatory frameworks in the Netherlands and Germany provide TSOs with a strong regulatory advantage. TSOs benefit from the regulators' solid track record of stability, and five-year regulatory periods with well-defined and transparent conditions. The regulatory frameworks provide virtually full coverage of costs (opex and capex) and protection against inflation, volume risk, and commodity risk. The stability and transparency of the framework allow for predictable and well-defined cash flows over a regulatory period.

Dutch regulator ACM's 2018/2019 new cost benchmarking model poses a threat to profitability for the next regulatory period starting 2022. The outcome of the final benchmarking model could significantly affect TenneT's individual efficiency factor (xind) of below 100% establishes productivity gains that it needs to achieve by the end of the regulatory period for its Dutch regulated operations. The final revision of the benchmarking model is still outstanding and expected no later than first-quarter 2021.

Peer comparison

Table 1

| TenneT Holding B.V.--Peer Comparison | | | | |
|--------------------------------------|------------------------|-----------------------------|-----------------------------------|-----------------------|
| Industry sector: Electric | | | | |
| | TenneT Holding B.V. | N.V. Nederlandse Gasunie | Elia System Operator S.A./N.V. | National Grid PLC |
| Rating as of May 10, 2019 | A-/Stable/A-2 | AA-/Stable/A-1+ | BBB+/Stable/A-2 | A-/Stable/A-2 |
| --Fiscal year ended-- | | | | |
| (Mil. €) | Dec. 31, 2019 | Dec. 31, 2019 | Dec. 31, 2018 | March 31, 2019 |
| Revenues | 4,422.0 | 1,360.9 | 2,338.2 | 14,933.0 |
| EBITDA | 2,059.0 | 970.6 | 868.5 | 4,804.5 |
| FFO | 1,675.5 | 783.1 | 620.1 | 3,642.5 |
| Interest expense | 225.0 | 115.0 | 132.3 | 1,119.0 |
| Cash interest paid | 183.5 | 107.8 | 144.6 | 882.0 |
| Cash flow from operations | 1,145.5 | 649.7 | 1,072.5 | 3,698.5 |
| Capital expenditures | 2,720.0 | 395.7 | 1,066.3 | 3,941.0 |
| Free operating cash flow | (1,574.5) | 254.0 | 6.2 | (242.5) |
| Discretionary cash flow | (1,819.0) | 26.0 | (92.5) | (1,455.2) |
| Cash and short-term investments | 202.0 | 72.2 | 880.1 | 1,193.0 |
| Debt | 11,601.3 | 3,921.2 | 6,073.8 | 27,928.8 |

Table 1

| TenneT Holding B.V.--Peer Comparison (cont.) | | | | |
|---|---------|---------|---------|----------|
| Equity | 5,980.0 | 6,033.3 | 3,395.8 | 20,419.0 |
| Adjusted ratios | | | | |
| EBITDA margin (%) | 46.6 | 71.3 | 37.1 | 32.2 |
| Return on capital (%) | 6.6 | 6.5 | 6.8 | 6.3 |
| EBITDA interest coverage (x) | 9.2 | 8.4 | 6.6 | 4.3 |
| FFO cash interest coverage (x) | 10.1 | 8.3 | 5.3 | 5.1 |
| Debt/EBITDA (x) | 5.6 | 4.0 | 7.0 | 5.8 |
| FFO/debt (%) | 14.4 | 20.0 | 10.2 | 13.0 |
| Cash flow from operations/debt (%) | 9.9 | 16.6 | 17.7 | 13.2 |
| Free operating cash flow/debt (%) | (13.6) | 6.5 | 0.1 | (0.9) |
| Discretionary cash flow/debt (%) | (15.7) | 0.7 | (1.5) | (5.2) |

We compare TenneT with other TSOs in Europe. Unlike most of its peers, TenneT operates in two countries, Germany and the Netherlands, which brings some diversification to regulatory reset risk, but also some additional complexity. The key difference between TenneT and most of its European peers is its large capex program, which results in highly negative FOCF to debt and discretionary cash-flow-to-debt ratios. Consequently, we view TenneT's financial risk profile as weaker.

Nevertheless, TenneT benefits from a few strengths that its European TSO peers do not share, in particular a lower dividend payout (35%) and ongoing support from its related government. For example, TenneT benefits from a €1.2 billion equity contribution from the Dutch government over 2017-2020.

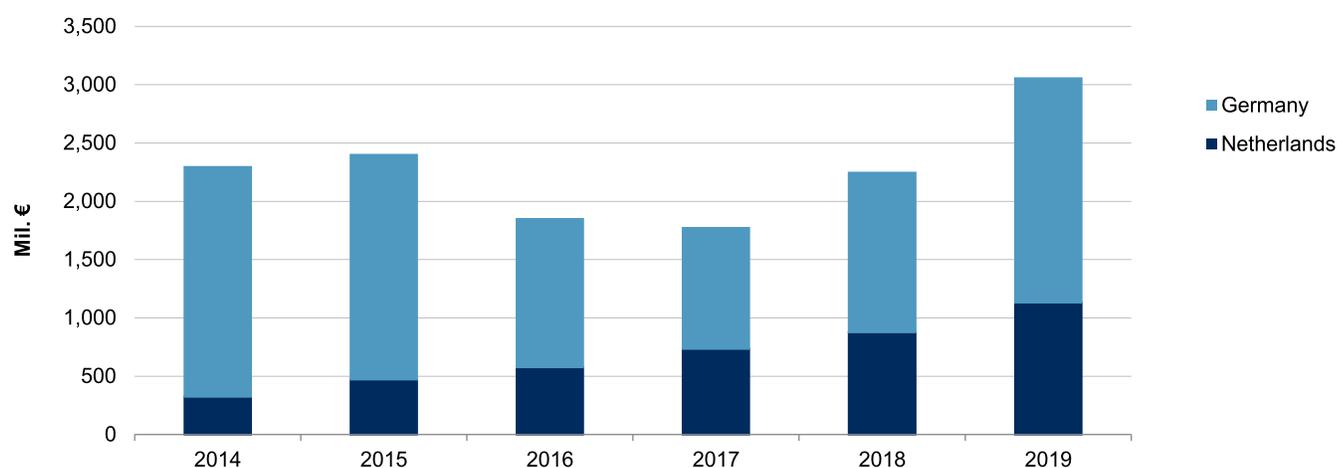
We compare TenneT with its French peer RTE. Similar to TenneT, RTE's strengths include a strategic monopoly position as the only electricity TSO in France (which we view as a low-risk country), the size of its network and its almost exclusive focus on regulated transmission activities. RTE's operation, solely in France, results in some limited diversification to regulatory reset risk, unlike peers that operate in two countries such as TenneT. Although lower than TenneT, RTE has a significant ongoing capex program with a good track record in capex execution.

Financial Risk: Aggressive

TenneT's financial risk profile is supported by relatively predictable regulated cash flows, however substantial investments result in high debt, which we expect will increase over the next 10 years. TenneT has embarked on an extensive capex plan to cope with energy transition dynamics in Germany and the Netherlands. Although this will enable the company to expand faster than its peers, thereby growing its RAB and regulated earnings, we believe it will result in negative free operating cash flow in each year of our forecast, therefore increasing the company's financing needs. This translates into a gradual deterioration of credit metrics, but which we nonetheless believe will remain consistent with the current rating.

Chart 3

TenneT Capex Historical Evolution



Source: Annual Reports, S&P Global Ratings.

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There is some volatility of cash flow metrics embedded in the regulatory framework. This reflects the delayed recovery of unexpected costs (such as for congestion-management measures) and regulatory account volume effects; however, we view this as a working capital issue rather than a credit risk.

We expect TenneT's credit metrics will weaken in the coming years. Specifically, we expect adjusted FFO to debt to decline in the coming two years to below 10% from about 14% at year-end 2019, and debt to increase by more than €1.5 billion annually. The forecast decline is mainly due to the continuing expansion of the investment program as per the German and Dutch NDP, combined with lower regulatory remuneration in Germany.

Financial summary

Table 2

TenneT Holding B.V.--Financial Summary

Industry sector: Electric

| | --Fiscal year ended Dec. 31-- | | | | |
|---------------------------------|-------------------------------|---------|---------|---------|---------|
| | 2019 | 2018 | 2017 | 2016 | 2015 |
| (Mil. €) | | | | | |
| Revenue | 4,422 | 4,269 | 3,976 | 2,843 | 2,844 |
| EBITDA | 2,059 | 1,697 | 1,580 | 1,075 | 1,045 |
| Funds from operations (FFO) | 1,676 | 1,246 | 1,210 | 712 | 608 |
| Interest expense | 225 | 217 | 206 | 198 | 184 |
| Cash interest paid | 184 | 212 | 189 | 152 | 162 |
| Cash flow from operations | 1,146 | 1,315 | 1,465 | 419 | 1,241 |
| Capital expenditure | 2,720 | 2,316 | 1,754 | 1,786 | 2,489 |
| Free operating cash flow (FOCF) | (1,575) | (1,001) | (289) | (1,367) | (1,248) |
| Discretionary cash flow (DCF) | (1,819) | (1,314) | (1,159) | (1,646) | (1,394) |

Table 2

| TenneT Holding B.V.--Financial Summary (cont.) | | | | | |
|--|-------------------------------|--------|--------|--------|--------|
| Industry sector: Electric | | | | | |
| | --Fiscal year ended Dec. 31-- | | | | |
| | 2019 | 2018 | 2017 | 2016 | 2015 |
| Cash and short-term investments | 202 | 8 | 55 | 157 | 3 |
| Gross available cash | 202 | 8 | 55 | 157 | 3 |
| Debt | 11,601 | 10,251 | 9,022 | 8,227 | 5,471 |
| Equity | 5,980 | 5,310 | 5,068 | 4,631 | 3,918 |
| Adjusted ratios | | | | | |
| EBITDA margin (%) | 46.6 | 39.8 | 39.7 | 37.8 | 36.7 |
| Return on capital (%) | 6.6 | 6.2 | 6.9 | 4.2 | 3.4 |
| EBITDA interest coverage (x) | 9.2 | 7.8 | 7.7 | 5.4 | 5.7 |
| FFO cash interest coverage (x) | 10.1 | 6.9 | 7.4 | 5.7 | 4.8 |
| Debt/EBITDA (x) | 5.6 | 6.0 | 5.7 | 7.7 | 5.2 |
| FFO/debt (%) | 14.4 | 12.2 | 13.4 | 8.7 | 11.1 |
| Cash flow from operations/debt (%) | 9.9 | 12.8 | 16.2 | 5.1 | 22.7 |
| FOCF/debt (%) | (13.6) | (9.8) | (3.2) | (16.6) | (22.8) |
| DCF/debt (%) | (15.7) | (12.8) | (12.8) | (20.0) | (25.5) |

Liquidity: Adequate

We consider TenneT's liquidity to be adequate for the next 12 months. As of March 31, 2020, we expect that its sources of liquidity will exceed uses by more than 1.2x over this period.

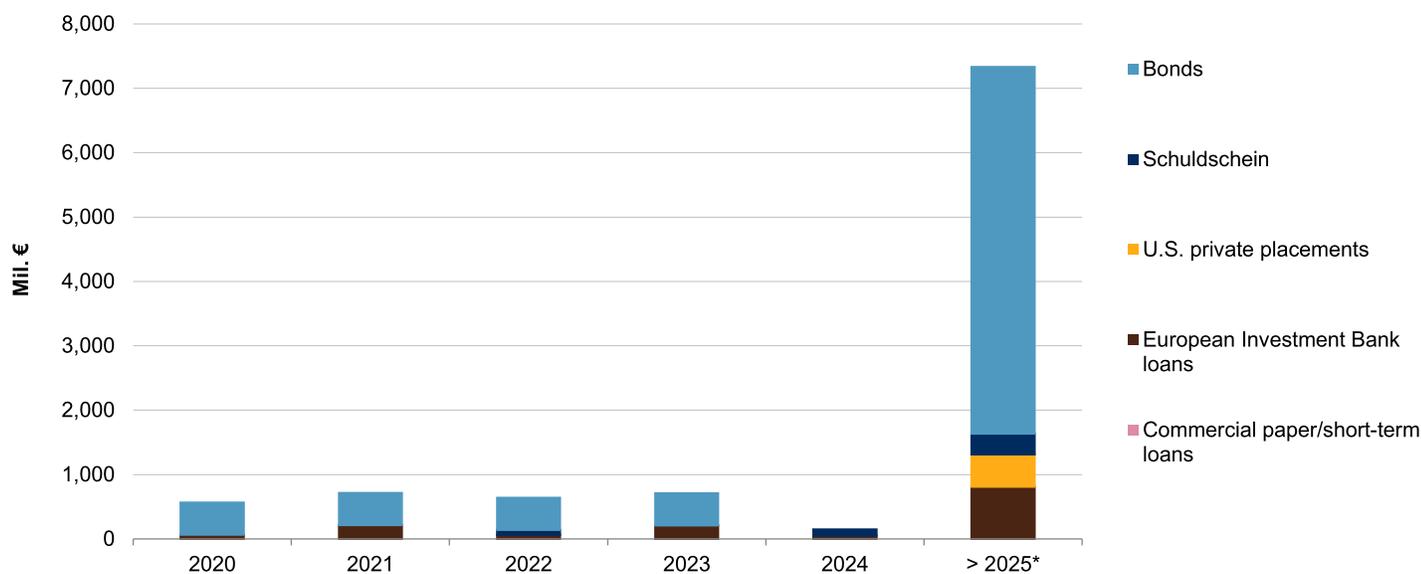
We understand that there are no restrictive covenants in the documentation for any of the company's debt.

| Principal Liquidity Sources | Principal Liquidity Uses |
|--|--|
| <ul style="list-style-type: none"> Unrestricted cash of about €168 million. Available undrawn committed bank facilities of €3.0 billion and a total of €600 million committed undrawn European Investment Bank facilities available for at least the coming 12 months. | <ul style="list-style-type: none"> €715 million in debt maturing over the next 12 months. Capex of €3.0 billion. Dividend payments based on a 35% payout ratio. |

Debt maturities

Chart 4

TenneT Debt Maturity Schedule



*Well-balanced debt repayments of about €660 million per year. Source: TenneT.
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Environmental, Social, And Governance

TenneT has a solid track record managing its grid with high quality, security, and safety standards. We expect the company to continue ensuring constant security of supply despite greater operational complexity stemming from integrating more renewable capacity into its network. Greater use of digitalization and data platforms within its processes should help TenneT fulfill its key social role as TSO in both the Netherlands and Germany.

TenneT is continuously extending its capex program to adapt to ambitious energy transition targets in both countries (we estimate aggregate investments of €40 billion-€50 billion will be deployed over the coming 10 years: about 70% for German offshore and onshore; the remaining for Dutch offshore and onshore capacity integration). TenneT is one of the largest hybrid green bond issuers in Europe (€1.1 billion outstanding maturing in 2024), having issued about €1.25 billion in green bonds in May 2019 and secured a €3 billion green RCF in November 2019.

Because TenneT's asset base is critical for both countries, it is under high regulatory and political scrutiny, reinforcing the need for strong governance. While the interests of TenneT's regulatory stakeholders are currently aligned and we view the sole owner, the Dutch Ministry of Finance, as supportive, if TenneT's stakeholders' interests diverge then governance challenges could arise.

Government Influence

We base our view of a moderately high likelihood of government support for TenneT on our assessment of the company's:

- Important role for the Dutch government, given its strategic importance for the domestic energy sectors as the monopoly owner and operator of the Dutch electricity TSO network. The ongoing equity contributions illustrate TenneT's importance for the Dutch government; and
- Strong link with the Netherlands, since TenneT is currently fully owned by the Dutch government and we believe it will likely remain majority state owned.

Our assessment of the likelihood of extraordinary support is lower for TenneT than for other European TSOs because of the increasing dominance of TenneT's German operations. We believe that the Dutch government could find it politically difficult to provide full and timely support to TenneT if it encounters financial difficulty due to problems in its German operations.

Issue Ratings - Subordination Risk Analysis

Capital structure

TenneT is using hybrid capital to support its large investment program in Germany. We consider the rated €1.1 billion outstanding hybrids to have intermediate equity content.

TenneT is the biggest corporate issuer of green senior unsecured bonds in the Netherlands. In addition to its existing green bonds (€6.0 billion outstanding) issued to invest in green energy, TenneT successfully placed its first green hybrid benchmark bond in April 2017.

Analytical conclusions

TenneT's debt structure is within our guidelines for aligning the rating on senior unsecured debt with the 'A-' issuer credit rating (ICR). This is because all of outstanding debt is at the parent company level and there is no secured debt.

We arrive at our 'BB+' issue rating on the hybrid instruments by notching down from our 'bbb' SACP on TenneT. The two-notch difference stems from deducting:

- One notch for subordination because our long-term ICR and SACP assessment are investment grade (higher than 'BB+'); and
- An additional notch for payment flexibility, to reflect that the deferral of interest is optional.

Reconciliation

Table 3

Reconciliation Of TenneT Holding B.V. Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €)
--Fiscal year ended Dec. 31, 2019--
TenneT Holding B.V. reported amounts

| | Debt | Shareholders' equity | EBITDA | Operating income | Interest expense | S&P Global Ratings' adjusted EBITDA | Cash flow from operations | Dividends |
|---|---------|----------------------|---------|------------------|------------------|-------------------------------------|---------------------------|-----------|
| Reported | 9,702.0 | 5,816.0 | 2,050.0 | 1,077.0 | 184.0 | 2,059.0 | 1,326.0 | 261.0 |
| S&P Global Ratings' adjustments | | | | | | | | |
| Cash taxes paid | -- | -- | -- | -- | -- | (200.0) | -- | -- |
| Cash taxes paid: Other | -- | -- | -- | -- | -- | -- | -- | -- |
| Cash interest paid | -- | -- | -- | -- | -- | (167.0) | -- | -- |
| Reported lease liabilities | 394.0 | -- | -- | -- | -- | -- | -- | -- |
| Debt-like hybrids | 20.0 | (20.0) | -- | -- | -- | -- | -- | -- |
| Intermediate hybrids reported as equity | 560.0 | (560.0) | -- | -- | 9.0 | (16.5) | (16.5) | (16.5) |
| Postretirement benefit obligations/ deferred compensation | 270.8 | -- | -- | -- | 4.0 | -- | -- | -- |
| Accessible cash and liquid investments | (202.0) | -- | -- | -- | -- | -- | -- | -- |
| Capitalized interest | -- | -- | -- | -- | 9.0 | -- | -- | -- |
| Dividends received from equity investments | -- | -- | 38.0 | -- | -- | -- | -- | -- |
| Asset retirement obligations | 856.5 | -- | -- | -- | 19.0 | -- | -- | -- |
| Income (expense) of unconsolidated companies | -- | -- | (35.0) | -- | -- | -- | -- | -- |
| Nonoperating income (expense) | -- | -- | -- | 3.0 | -- | -- | -- | -- |
| Reclassification of interest and dividend cash flows | -- | -- | -- | -- | -- | -- | (164.0) | -- |
| Noncontrolling interest/minority interest | -- | 744.0 | -- | -- | -- | -- | -- | -- |
| EBITDA: Other | -- | -- | 6.0 | 6.0 | -- | -- | -- | -- |
| Total adjustments | 1,899.3 | 164.0 | 9.0 | 9.0 | 41.0 | (383.5) | (180.5) | (16.5) |

S&P Global Ratings' adjusted amounts

| | Debt | Equity | EBITDA | EBIT | Interest expense | Funds from operations | Cash flow from operations | Dividends paid |
|----------|----------|---------|---------|---------|------------------|-----------------------|---------------------------|----------------|
| Adjusted | 11,601.3 | 5,980.0 | 2,059.0 | 1,086.0 | 225.0 | 1,675.5 | 1,145.5 | 244.5 |

Ratings Score Snapshot

Issuer Credit Rating

A-/Stable/A-2

Business risk: Excellent

- **Country risk:** Very low
- **Industry risk:** Very low
- **Competitive position:** Strong

Financial risk: Aggressive

- **Cash flow/leverage:** Aggressive

Anchor: bbb

Modifiers

- **Diversification/portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Adequate (no impact)
- **Management and governance:** Fair (no impact)
- **Comparable rating analysis:** Neutral (no impact)

Stand-alone credit profile : bbb

- **Related government rating:** BBB
- **Likelihood of government support:** Moderately high (+2 notches from SACP)

Related Criteria

- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria - Corporates - General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology And Assumptions: Assigning Equity Content To Hybrid Capital Instruments Issued By Corporate Entities And Other Issuers Not Subject To Prudential Regulation, Jan. 16, 2018
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria - Corporates - Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013

- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Group Rating Methodology, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- General Criteria: Criteria Clarification On Hybrid Capital Step-Ups, Call Options, And Replacement Provisions, Oct. 22, 2012
- General Criteria: Stand-Alone Credit Profiles: One Component Of A Rating, Oct. 1, 2010
- Criteria - Financial Institutions - General: Methodology: Hybrid Capital Issue Features: Update On Dividend Stoppers, Look-Backs, And Pushers, Feb. 10, 2010
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009
- Criteria - Insurance - General: Hybrid Capital Handbook: September 2008 Edition, Sept. 15, 2008

Related Research

- Recent Rating Reviews On EMEA Utilities Reflect The Sector's Strength Against COVID-19 Shock, Apr 07, 2020
- EMEA Utilities Should Withstand COVID-19 Better Than Most Sectors, March 24, 2020
- COVID-19 Macroeconomic Update: The Global Recession Is Here And Now, March 17, 2020
- COVID-19 Credit Update: The Sudden Economic Stop Will Bring Intense Credit Pressure, March 17, 2020
- EMEA Utilities: Slides From The 2019 Infrastructure Roadshow, Dec. 5, 2019
- Five Issues To Keep An Eye On For European Utilities' Credit Quality, Dec. 5, 2019
- Industry Top Trends 2020: EMEA Regulated Utilities, Nov. 13, 2019
- Bulletin: German Federal Court Overrules Electricity And Gas Utilities' Hopes For Regulatory Remuneration, Jul. 12, 2019
- Dutch Electricity And Gas Networks: Why We See The Regulatory Frameworks As Supportive, May 15, 2019
- TenneT Holding B.V., May 10, 2019
- Why We See Germany's Electricity And Gas Regulatory Framework As Supportive, Nov. 21, 2016

Business And Financial Risk Matrix

| Business Risk Profile | Financial Risk Profile | | | | | |
|-----------------------|------------------------|--------|--------------|-------------|------------|------------------|
| | Minimal | Modest | Intermediate | Significant | Aggressive | Highly leveraged |
| Excellent | aaa/aa+ | aa | a+/a | a- | bbb | bbb-/bb+ |
| Strong | aa/aa- | a+/a | a-/bbb+ | bbb | bb+ | bb |
| Satisfactory | a/a- | bbb+ | bbb/bbb- | bbb-/bb+ | bb | b+ |
| Fair | bbb/bbb- | bbb- | bb+ | bb | bb- | b |
| Weak | bb+ | bb+ | bb | bb- | b+ | b/b- |
| Vulnerable | bb- | bb- | bb-/b+ | b+ | b | b- |

Ratings Detail (As Of May 15, 2020)*

TenneT Holding B.V.

| | |
|-----------------------|---------------|
| Issuer Credit Rating | A-/Stable/A-2 |
| Commercial Paper | |
| <i>Local Currency</i> | A-2 |
| Junior Subordinated | BB+ |
| Senior Unsecured | A- |
| Short-Term Debt | A-2 |

Issuer Credit Ratings History

| | |
|-------------|------------------|
| 15-Apr-2010 | A-/Stable/A-2 |
| 21-Jan-2010 | A-/Watch Neg/A-2 |

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

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