

# What Europe's Energy Redesign Might Mean For Its Power And Gas Markets

September 13, 2022

## Key Takeaways

- The EU is considering several policy actions to address the energy crisis, including decoupling gas and other power prices and capping the price of EU gas imports or gas used for power generation. Mandatory demand-curbing measures, including on power, are also on the table.
- Additionally, to preserve financial system stability Europe is addressing the severe liquidity concerns of some power exchanges and market participants, with the Swedish, Finnish, and U.K. governments separately having announced liquidity facilities to solvent participants together worth over €80 billion.
- Meanwhile U.K. policy proposals aim to curb energy costs for households and businesses by capping the per unit cost. Further reform could come while incentivizing oil and gas production, possibly even fracking.
- We believe the success of these actions at helping exchange markets return to functioning as intended, reducing price volatility, and allowing utilities to hedge earnings for a bearable liquidity burden will ultimately depend on how swiftly they are implemented and how they work together.
- While government financing of measures appears feasible (including in the U.K.), the implementation will be complex in the very fragmented European power markets and take time, raising further pressure on affordability and demand destruction.

## PRIMARY CREDIT ANALYST

**Emmanuel Dubois-Pelerin**  
Paris  
+ 33 14 420 6673  
emmanuel.dubois-pelerin  
@spglobal.com

## SECONDARY CONTACTS

**Massimo Schiavo**  
Paris  
+ 33 14 420 6718  
Massimo.Schiavo  
@spglobal.com

**Per Karlsson**  
Stockholm  
+ 46 84 40 5927  
per.karlsson  
@spglobal.com

**Claire Mauduit-Le Clercq**  
Paris  
+ 33 14 420 7201  
claire.mauduit  
@spglobal.com

**Aarti Sakhuja**  
London  
+ 44 20 7176 3715  
aarti.sakhuja  
@spglobal.com

European energy markets are likely to see major policy changes by first-quarter 2023. Several reforms are currently up for discussion, including greater regulation of prices and demand and actions to address the severe liquidity concerns of some of its power and gas exchanges and market participants, even solvent ones, which S&P Global Ratings believes could reduce overall systemic risks and credit risk for individual utilities.

Last quarter--particularly the last three weeks of it--suggest that Europe's power and gas exchanges are not functioning as intended. As liquidity reduces, exchanges are at risk of freezing. Even worse, if a power market participant, even a small one, defaults on its collateral-posting obligations, it could have severe consequences for the functioning of the whole market and the wider financial system. This has prompted the Swedish, Finnish, and U.K. governments to

## What Europe's Energy Redesign Might Mean For Its Power And Gas Markets

separately announce liquidity facilities to solvent participants together worth over €80 billion.

In light of the extraordinary turbulence in gas and power markets, EU energy ministers held an emergency meeting on Sept. 9 to discuss concrete policy options for swiftly addressing Europe's energy crisis. While the ministers' final statement from the meeting was fairly high level, we think certain elements deserve close attention, whether by their presence or absence, in assessing which EU energy policies could emerge over fourth-quarter 2022. In particular, our analysis below focuses on the degree to which proposed policies could stabilize physical and derivative market functioning without compromising energy-consumption reduction goals or the longer-term goal of shorten the thorny way over the "gas bridge" to sustainable energy supply.

We believe that the degree to which the EU's and U.K.'s selected policy actions could help stabilize and increase the predictability of Europe's power and gas markets, as well as utilities' liquidity and overall credit quality, will depend on how quickly measures can be implemented and how they work together (see "Nord Stream 1 Shutdown: Will Utilities And Markets Freeze This Winter?," published Sept. 6, 2022, on RatingsDirect). For the EU plans, we believe it will take weeks for specifics to emerge for a partial or wholesale market redesign coupled with more clear liquidity support mechanisms. The Sept. 14 state of the union speech from the commission president, and subsequent EU-level discussions, may clarify which options are chosen. Liquidity facilities should have the most near-term impact, in our view.

## Policy Signals Appear To Be Calming Markets, But Prices Remain Volatile And Sky-High

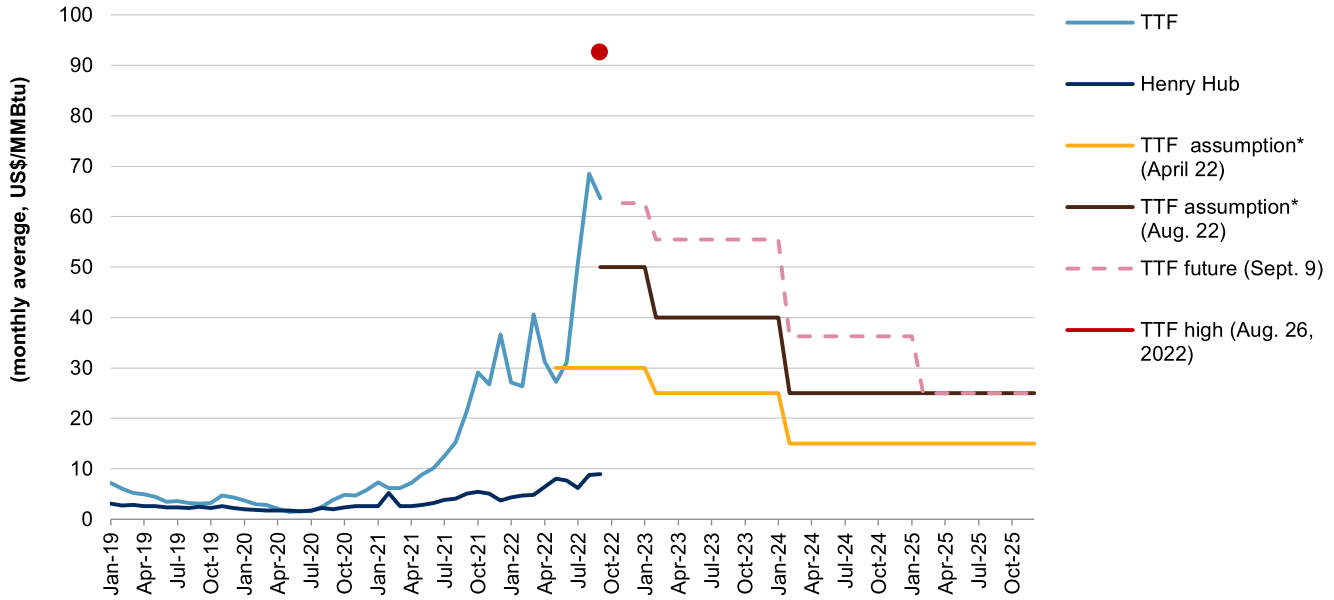
**European power and gas markets have calmed somewhat amid early signs of policy response from the EU and U.K. government, but prices remain volatile.**

Most European power and gas indices remain very high at multiples of the levels registered up to mid-2021 (see chart 1). Nevertheless, they have fallen a third since peaking on Aug. 26, 2022 (with the Dutch Title Transfer Facility [TTF] prices of €320 per megawatt-hour being equivalent to close to \$550 per barrel of oil). High prices are supported by Gazprom's Sept. 2, 2022, announcement of the "indefinite closure" of Nord Stream 1, the only pipeline supplying Germany from Russia; we treat this closure as permanent in our base case (see chart 2). While many factors are at play, the early directional signals provided by EU and U.K. policymakers may be having a soothing effect on both country-specific price indices and European liquified natural gas (LNG) prices. The latter are key given LNG's major contribution to the EU's security of supply and have fallen to a seven-week low, according to S&P Global Commodity Insights. The significant contango present well into the winter suggests continued market nervousness.

# What Europe's Energy Redesign Might Mean For Its Power And Gas Markets

Chart 1

## European And U.S. Benchmark Gas Prices



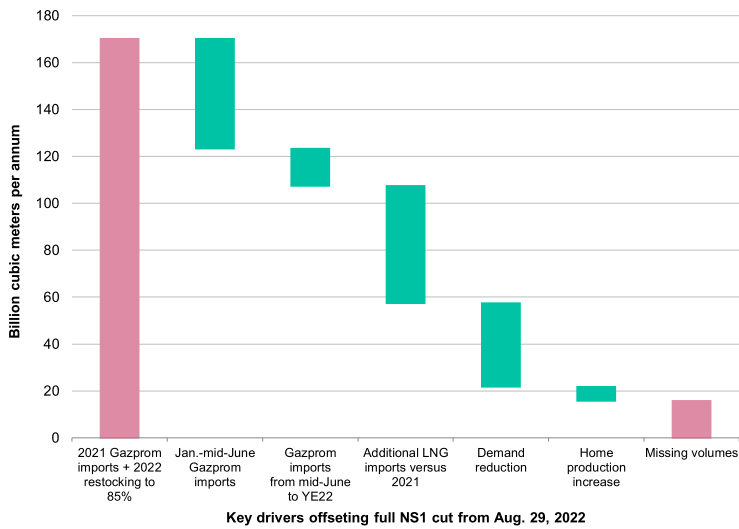
Source: IHS Markit, S&P Global Ratings. \*S&P Global Ratings assumptions. MMBtu--Million British thermal units.

Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

## What Europe's Energy Redesign Might Mean For Its Power And Gas Markets

Chart 2

### Absent Nord Stream 1, Europe Lacks Gas For First-Quarter 2023



NS1--Nord Stream 1. LNG--Liquified natural gas. YE--year-end. Source: S&P Global Ratings. Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

Markets may also be reacting to what we understand to be the European Commission's potential key proposals and the actions proposed by the U.K. government (see below).

## The EU's Five Key Policy Proposals

We understand the European Commission's proposals to tackle surging energy prices and energy exchange disruptions currently focus on the following key initiatives.

**Proposal 1: Capping the revenue of inframarginal power generators, that is of production from sources other than gas firing, namely hydro, solar, wind, nuclear, and coal.** This makes sense because, given gas supply scarcity, gas firing sets the highest marginal power price at multiples of the cost at which non-fossil fuel power generators produce power. And fixed-cost generators benefit from the high pool price on their merchant production, while their cost base is not correlated to gas.

**Proposal 2: Requiring financial contributions from oil and gas producers to finance soaring end-customer gas bills.** The success of this measure will depend on whether the scope is limited to EU-based production or broader. In the former case, the amounts raised likely would be minimal while discouraging growth in gas production, which has been divided by three over the last decade.

**Proposal 3: Imposing temporary market intervention including a gas price cap on power generation.** This likely would be inspired by the schemes already implemented in Iberia, which have been successful in terms of maintaining affordability, but have kept consumption high. It is unclear, however, how this would work outside a fairly insulated market like Iberia, with few physical connections to the rest of Europe. The commission may also look into activating the Market Stability Reserve and using the EU Emissions Trading System to reduce unsustainable electricity prices, although pushing for a lower carbon dioxide price contradicts decarbonization strategies.

**Proposal 4: Pushing for mandatory reduction of power demand across the EU.** This would echo and complement the Aug. 5 EU regulation that set a voluntary target for most member states (excluding Italy and Spain) of reducing gas consumption by 15% until March 2023. To the extent implemented, we believe this would significantly derisk this winter's supply.

**Proposal 5: Increasing liquidity for energy companies, which for some has been strained since last winter.**

## The U.K. Government's Energy Response

The U.K. government also aims to curb energy costs for end customers and preserve energy operators' financial stability through a number of actions:

- From Oct. 1, the new Energy Price Guarantee scheme will cap the per unit cost of energy for U.K. households and businesses at £2,500 over the next two years for the average household's dual-energy annual bill. Unofficial estimates peg the cost of the scheme at about £150 billion over two years, though the final cost would ultimately hinge on market prices for gas.
- The government has also announced a £40 billion liquidity facility to solvent power market participants generators as they face increased collateral and margin calls on their hedges for future production, and is negotiating long-term contracts with generators to purchase energy at below market cost. In our opinion, these measures will support the creditworthiness of U.K. generators by staving off short-term liquidity pressures, while also allowing them to secure assured prices for their merchant production over time.
- The U.K. has also imposed an additional 25% profit tax levy on its still-significant and relatively stable domestic hydrocarbon production of some 1.5 million barrels of oil equivalent per day (see "U.K. Energy Profit Levy Tempers Debt Reduction Prospects For North Sea Producers," published June 1, 2022).
- Furthermore, in a marked departure from the previous administration, and in contrast to EU energy transition proposals, the new government plans to issue more licenses for North Sea exploration and for fracking to shore up domestic oil and gas production.

## EU Sept. 9 Meeting Foreshadows Resolute Price Regulation And Financial Stability

**We believe the following points from the final statement concluding the EU energy ministers' Sept. 9 meeting are particularly relevant in assessing how European power and gas markets may evolve,** and in particular whether we can expect changes in the liquidity risk profile of utilities with open positions on power exchanges—a key focus in our rating surveillance this year.

### Possible actions on prices

**Ministers expect imminent commission proposals for exceptional interventions to decouple, at least partly, gas prices from electricity prices,** both on wholesale markets and to residential customers (to protect affordability) and business (to protect competitiveness). This, which appears to link to Proposals 1 and 3 (as listed in the first sidebar), likely would involve gas price caps, possibly similar to those Spain and Portugal enacted from spring for 12 months. A fine balance would have to be struck, however, to still incentivize sufficient supply without disincentivizing a reduction in consumption—in our view the EU's key lever to sustainably reestablish a balanced physical gas market and thereby moderate prices.

**We understand the commission also intends to set prices at levels that incentivize reducing both gas and electricity demands.** We believe this is feasible, since current wholesale prices remain at multiples of the levelized cost of producing non-gas-fired electricity, and significantly above that of coal. Besides the levels at which gas would be capped, we believe it is crucial to clarify whether caps would apply differently for gas-to-power versus other uses, and whether they would apply to all imports or just to those from Russia. In the latter case, we see significant additional downside risk to Europe's energy markets that the significant remaining volumes of imports from Russia would be cut; they still represent some 35 billion cubic meters per annum (bcm/pta) including LNG, or some 22% of the 2021 level, covering about 8% of European demand; they could not be replaced any time soon and the price-to-volume elasticity of natural gas has proved to be extremely high. This would exacerbate Europe's physical shortfall risk and market price gyrations. Additionally, there is also a risk that Norway, the U.K., and North African exporters, which are key to the EU's security of supply, might have mixed reactions and not be incentivized to enhance their exports.

**Beyond the current emphasis on cutting gas demand, ministers also expect commission proposals on EU-wide power consumption moderation, with an emphasis on dropping peak demand.** We expect that nuclear and hydro generations will remain somewhat weak in the near term, even as France, which owns 55% of Europe's nuclear capacity, raises production back strongly from historical lows in July-August. It also became clearer last week that Germany prolonging only two nuclear plants, and only as reserve capacity, for 3.5 additional months to mid-April will contribute almost nothing (less than 0.5 billion cubic meters) to reducing gas-fired generation. Given the challenge of reducing overall power consumption, we believe the EU's emphasis on reducing peak demand for electricity makes sense, since that is when gas-fired generation is the least replaceable and price spikes are the most likely; hence price mechanisms can hopefully be devised and swiftly implemented to reduce peak demand by endearing it.

The emphasis on power demand reduction appears to link to Proposal 4. We note, however, that in July-August EU economies reduced power demand only 3% year on year (despite slowing economic growth) which, given low nuclear and hydro production, slow coal ramp-up and price mechanisms strongly supporting gas burning in some countries, contrary to both policy and market-stabilization aims; this also was despite record solar power generation this summer. Additionally, a harsher winter could go against household and overall demand reduction, as historically harsh winters have raised European demand by up to 20-25 billion cubic meters (i.e., by 4%-5%), which could double Europe's gas shortfall this winter.

### A focus on energy operators' financial stability

**Beyond stabilizing physical markets, ministers are also concerned about the impact of surging prices on the financial stability of energy operators and their ability to trade in the market, consistent with Proposal 5.** If a power market participant, even if small, defaults on its collateral-posting obligations, the exchange's central clearing counterparty (CCP) then must take them over to other market participants and auction off these contracts; losses in the process could destabilize the CCP, hiking risks to the financial system in general. Governments may prefer to avoid systemic market stress with hard-to-predict consequences. Hence, last week, the Swedish and Finnish governments coordinated announcements they will provide some €33 billion in liquidity guarantees to power market participants; for context, since June, required collateral on Nasdaq Clearing's Swedish electricity contracts nearly tripled to the equivalent of €17 billion.

## What Europe's Energy Redesign Might Mean For Its Power And Gas Markets

Indeed, the same day as ministers met, yet another company, EnBW Energie Baden-Wuerttemberg AG's 74%-owned gas trading subsidiary VNG (unrated) applied for state liquidity support (after Uniper SE in July and Wien Energie GmbH in August), confirming concerns on proper functioning of physical power markets.

While the concerns on energy exchanges were most clearly highlighted in the U.K., Germany, Sweden, and Finland, we believe the issues are shared in other markets, given the commonality of causes for the stress on utilities' liquidity. Thus, hundreds of billions of euros worth of liquidity are tied up as cash collateral on power exchanges, provoking a cash crunch at utilities and reducing incentives to trade and reducing market liquidity. Ministers rightly call for EU-level coordination to avoid distortions from governments providing emergency liquidity instruments in an overly varied nature (non-government solutions include for exchanges to accept other collaterals than cash); we believe strong EU-U.K. coordination is also worthwhile. We note EU authorities may focus much more on energy exchange functioning than on the credit quality of utilities per se (for example, of those not trading on EU energy markets).

### **In addition, some of the proposals, such as price caps, could greatly benefit utilities' liquidity.**

Since initial collateral posting is a direct function of current and past market price volatility, introducing a legal cap and thus reducing price volatility would have a direct and beneficial effect on European utilities' balance sheets by reducing initial collateral posting requirements. Given some hysteresis (the initial margin being driven by both current and past price volatility), we believe early action is all the more beneficial.

Less volatility would also have a direct impact on future variation margin changes, therefore directly supporting (or not weakening as much) European utilities' balance sheets and liquidity.

## Topics The EU Ministers' Meeting Did Not Address Publicly

We recognize not all issues can be concurrently addressed and EU authorities are already tackling a number of separate issues within the very complex EU energy market. We believe national governments may look to include the following issues in their focus.

**We believe the EU's security of gas supply would be stronger with closer coordination of purchases of piped gas from the Mediterranean and LNG from global markets.** We understand this has not yet been addressed in current discussions. For example, we believe Europe has a structural competitive disadvantage as a purchaser on global LNG markets, because signing long-term take-or-pay contracts that support multi-billion investments in liquefaction conflicts with Europe's ambition to, if anything, shorten the "gas bridge" to a predominantly renewables- and nuclear-driven power generation mix. Thus, this summer, as in previous quarters, progress in raising future LNG delivery commitments was slow, particularly for the key "third wave" of U.S. liquefaction projects in the U.S.

**Optimizing regional supply-demand matching and reducing the current fragmentation is especially valuable within a continent at risk of a gas shortfall.** This could include strengthening physical interconnections within Europe between gas-rich Western regions and regions at risk of being short on gas. Discussions around boosting key interconnections from Spain to France (or Italy) and from France to Germany do not appear to be making sufficiently swift progress. Over the past four quarters in Europe, despite steadily rising power and gas prices, few new interconnection projects have taken off, apart from the re-export elements of some floating storage regasification units (for example, the Czech Republic's booking from the two Dutch ones, commissioned this week with 8 bcmpa of capacity, covers a third of Czech demand). This



## What Europe's Energy Redesign Might Mean For Its Power And Gas Markets

contrasts with the refreshing commissioning, precisely this year, of many projects started years ago, notably to shape the EU's "Eastern corridor."

Enhancing the understanding of peak demand and supply imbalances for both gas and power, would also go a long way to optimize the then necessary--and very costly--physical flows. Such understanding can also help reduce demand for precious gas-to-power, inherently the prime power generation source to stabilize power networks. Finally, it may help deciding whether to cap energy price per kilowatt-hour on households' entire consumption or only on their basic need, so as to incentivize a reduction of surplus consumption (means-testing unit prices, as sometimes discussed, in our view would face considerable implementation challenges).

**The budgetary impact of such policy measures is also an area pending further clarification.** We believe the EU and national governments could strengthen the general public's acceptance of policymaking by providing additional clarity on its budgetary cost, net of any windfall tax on oil and gas producers and net of non-gas power producers' contribution. The annual amounts may run into the tens of billions of euros in each of the largest markets and we find more clarity on the subject in the U.K.

Clarity on budget would also require more information on governments' exit strategies and timing, which are hard to predict given that gas supply challenges are likely to continue well into 2024. In the EU, a positive development for rate utilities is that, in our understanding, substantial state aid can be provided more easily and quickly to consumers and companies than we initially expected, and with a fewer constraints posed by government deficit-reduction targets. Targeting aid at consumers and utilities that need it most could still be a challenge though.

**Additionally, although not expressly mentioned in the ministers' statement, the commission has stated readiness to develop a complementary index for LNG.** This could be all the more worthwhile as the current pricing benchmark for gas in gas-short regions, the Dutch TTF price, is in the commission's view linked to a relatively small and pipeline-based market not reflecting the current EU reality. Yet, as our sister company Platt's notes, a wide gap exists between the TTF price (and indices prevailing in Central and Eastern Europe) on the one side, and on the other side (i) LNG prices delivered in countries strong on regasification and (ii) wholesale gas prices prevailing in these countries; low interconnections may explain why TTF prices remains high. On the other hand, by Sept. 12, the U.K. benchmark the National Balancing Point converged with the TTF across the forward curve.

## Where Challenges Could Arise

The implementation of the potential EU- and U.K.-level remedies being discussed is likely to be complex in a fragmented European energy market. Expeditious action will be key to support both continued affordability and swift demand destruction, in our view. We believe that challenges could stem from:

- Transitioning to a new system from one where most participants have taken long-term arrangements including hedges or business models--effectively a market redesign.
- The need to strike a balance between setting gas prices sufficiently high to attract global LNG supply and discourage demand, but not too high for residential and business customers.
- The transition to a new market design needing to take place this winter, against the backdrop of uncertainty on temperatures and final demand.
- Not least, market intervention or substitution when setting price caps, for example on green

## What Europe's Energy Redesign Might Mean For Its Power And Gas Markets

power generation or on gas prices, potentially introducing biases and resulting in unexpected consequences for the energy sector.

### Related Research

- Nord Stream 1 Shutdown: Will Utilities And Markets Freeze This Winter?, Sept. 6, 2022
- S&P Global Ratings Raises European Gas Price Assumptions On Uncertain Supply, Aug. 1, 2022
- Uniper 'BBB-' Ratings Affirmed Following German Government Support Package; Outlook Negative, July 29, 2022
- Finland-Based Power Company Fortum 'BBB/A-2' Ratings Affirmed Following Uniper Support Package; Outlook Negative, Aug. 3, 2022
- [Industry Top Trends Update: EMEA Utilities](#), July 14, 2022
- Energy Transition: Gas' Role Varies By Sector And Region Amid Security Of Supply Concerns, July 20, 2022

This report does not constitute a rating action.

Copyright © 2022 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, [www.standardandpoors.com](http://www.standardandpoors.com) (free of charge), and [www.ratingsdirect.com](http://www.ratingsdirect.com) (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at [www.standardandpoors.com/usratingsfees](http://www.standardandpoors.com/usratingsfees).

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.