U.S Utility Tariff/Stranded Cost Bonds Rating Criteria

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**Related Criteria**
- Global Structured Finance Rating Criteria (May 2017)
- Structured Finance and Covered Bonds Counterparty Rating Criteria (May 2017)

**Scope**

This report presents Fitch Ratings’ analytical approach to rating U.S. utility tariff/stranded cost bonds. The criteria are relevant for new ratings and surveillance, with differences detailed herein. It outlines the unique features of a tariff bond relative to a traditional asset-backed security (ABS), notably, the bond’s characteristics as an intangible, future-flow regulatory asset, and the special protections available to holders of tariff bonds that quality achievement of ‘AAAsf’ ratings.

The revenue streams provided by the dedicated tariff are used for utilities to recoup cost associated with lost revenue or cost associated with repairing utilities’ transmission and distribution system following a natural disaster (utility tariff bonds). Additionally, the dedicated tariff can be used to recoup unrecoverable contractual and sunk cost (stranded cost) due to deregulation within the utility sector.

Fitch has only assigned ‘AAAsf’ ratings in this sector; therefore, Fitch’s new issue methodology only addresses ‘AAAsf’ rating outcomes. To date, Fitch has only rated transactions issued by electric utilities, and the analyses have been focused on electric consumption by customers within the utilities’ service territory. However, Fitch believes the analysis and stress assumptions detailed in the criterion can be applied to other utility sectors, such as water and gas. In these unique circumstances, Fitch expects the legal and regulatory framework to be consistent with typical electric utility-issued transactions.

**Key Rating Drivers**

Each of the following key rating drivers is of equal importance for the analysis.

**Regulatory Framework:** Unlike that of other ABS transactions, the cash flow stream supporting tariff bonds is a special tariff established under legislative or regulatory authority. Thus, the first and most significant component in Fitch’s rating analysis is a thorough understanding of the statute and order.

**Legal Risks:** Fitch’s analysis of tariff transactions includes a review of the legal structure to confirm that the cash flow derived from the special tariff will not be impaired or diminished.

**Revenue Stability** The cash flow supporting tariff bonds is generated by payments from all or designated categories of customers in the utility’s service territory. As such, Fitch reviews the composition of the service territory. Fitch also reviews the size of the tariff relative to the total customer bill to determine its viability, as (in Fitch’s view) excessive charges may present additional risk of political or regulatory challenge.

**Structural and Cash Flow Analysis:** Fitch uses a proprietary cash flow model, which is customized to reflect the payment structure of the transaction, and tests the impact of stressing various assumptions, including historical chargeoff and variance patterns. The output of the cash flow model is reviewed to determine whether the rated bonds are fully paid in accordance with the transaction documents in each stress scenario associated with a particular bond’s rating.
Data Sources and Adequacy

Fitch utilizes historical data provided by the utility as inputs in its cash flow model, as well as for performance-based qualitative measures. Specifically, the stresses derived for the purposes of this methodology were developed based a combination of historical data specific to each utility issuing the bonds and Fitch’s analytical expertise. Therefore, Fitch reviews to receive a minimum of five to 10 years of historical data demonstrating forecast consumption variance, delinquency rates and chargeoffs for each customer class. Fitch also expects to see data supporting the calculation and allocation of the tariff charge for each customer class, including the average customer bill for each class.

Historical data analysis may be deemed inadequate by Fitch due to (but not limited to) factors such as limited data availability and a history of poor consumption forecasting. In circumstances where full data sets are not provided or where Fitch deems provided data inadequate, Fitch will adjust its cash flow model assumptions accordingly, likely using a worst case scenario approach. If data provided are inadequate or insufficient, Fitch may cap the ratings it assigns or elect to not rate the transaction outright.

Legal and Regulatory Framework

Utility tariff/stranded cost bonds are secured by collateral in the form of a dedicated special tariff. The special tariff is a regulatory asset established pursuant to an enabling act (the statute) passed by a state legislature to serve a public interest need for this type of financing. The statute is followed by a regulatory approval referred to as a financing order (the order) issued by that state’s utility commission or the equivalent agency of the state authorizing the issuance of bonds backed by the special tariff.

The statute uses the authority of the state contemplating securitization to establish obligations, such as the state pledge, and to grant the commission or the equivalent agency of the state any rights that it would otherwise lack under existing state law. The statute serves to order and implement the state’s policy objectives with regard to the tariff monetization, whereas the order is analogous to a comprehensive procedures manual that sets forth specific transaction terms and related provisions.

Fitch begins its analysis of utility tariff/stranded cost securitizations by closely analyzing the legal framework in place, specifically, the statute and order. In states considering securitization, a special tariff component will be established as an irrevocable charge through the statute approved by the state legislature and by the order approved by the commission or the equivalent agency of the state. While reviewing the provisions of the statute and/or order, Fitch focuses primarily on the

Legal and Regulatory Checklist

- Special tariff established as a property right.
- Irrevocable by subsequent legislatures or commissions or the equivalent agency of the state.
- Statute, if applicable, includes the state non-impairment pledge.
- Supported by federal and state constitutional protections.
- Implication of the state referendum or ballot initiative process.
- Bankruptcy-remote issuer, nonconsolidation of trust assets with the utility and a true sale of property rights.
- First-perfected security interest in the property rights granted to the indenture trustee.
- Tariff true-up mechanism.
- Nonbypassable charges for customers connected to the distribution network.
- Guidelines for consolidated billing by third-party energy providers, if applicable.
following seven legal and/or regulatory features of the transaction to determine compliance to its criteria:

- property right;
- irrevocability and state support;
- bankruptcy remoteness/true sale;
- utility successor requirements;
- third-party energy providers;
- true-up mechanism; and
- nonbypassability.

It is important to emphasize that Fitch views the absence of enabling provisions (in the statute and/or order) that address any of the first five elements listed above as generally inconsistent with ‘AAAsf’ ratings.

**Property Right**

Since the asset securing the tariff bonds is a right to a future cash flow stream, Fitch expects the statute or order to establish future special tariff collections as a property right that can be transferred and pledged as a security interest. Since the property right may not be governed by the Uniform Commercial Code, procedures for establishing a first-perfected security interest should also be outlined in the statute or order, as applicable. The amount of the special tariff, as well as the rules for its collection, should be defined in the order approved by the commission or the equivalent agency of the state in the relevant state.

**Irrevocability and State Support**

Irrevocability of the special tariff prohibits the legislature, the commission or any other agency or governmental entity from rescinding, altering or amending the special tariffs or property rights in any way that would reduce or impair their value. Fitch considers the irrevocability language an important protection against changing political agendas in the legislative or executive branches of government. It represents a high level of assurance of state regulatory action in support of the revenue requirements of tariff bonds.

Once the bonds are issued, Fitch expects this high level of assurance of state regulatory action to be further supported by the contracts and takings clauses of the U.S. Constitution and most state constitutions, which protect against contract impairment and property seizures without just compensation.

Tariff bonds are not direct obligations of the state or guaranteed by the state’s full faith and credit. However, if the tariff bonds are issued pursuant to specific legislation, the statute typically includes a state non-impairment pledge wherein the state agrees that it will not limit or alter the special tariffs (the property right), the order or any other right under the bonds until the principal and interest on the bonds are fully paid or unless adequate compensation has been made to safeguard bondholder rights.

Because the assets securing these bonds are created through the political and regulatory processes, the statute and order will be subject to challenge from opposing parties. While the political process differs from state to state, the enactment of legislation or issuance of the order involves a process in which interested parties have the opportunity to challenge or submit amendments to the proposed language.
Generally, after the statute is approved by the legislature and/or the order is issued by the commission or the equivalent agency of the state, there is an additional defined period when outside parties can challenge the statute or order through litigation. When this period expires, the potential for further political and regulatory attack is substantially diminished. Therefore, transaction closings are expected to occur only after the statute and order become non-appealable.

Fitch recognizes that many states have a ballot initiative and/or referendum process that allows opposition groups to place a petition on the election ballot upon receipt of a given number of voter signatures. When analyzing tariff bonds issued under the relevant statute in these states, it is important to understand how ballot initiatives or referenda affect the federal and state constitutional protections, the irrevocability language and the state non-impairment pledge. Fitch expects transaction counsel to provide an analysis of the constitutional protections and issues in the relevant state.

**Bankruptcy Remote/True Sale**

The statute or order is expected to protect bondholders from the interruption or impairment of cash flows in the event of a utility bankruptcy, as explained in the Utility Successor Requirements section below. It is also expected to provide that the transfer of property rights to the trust will be treated as an absolute transfer, not as a pledge, of the seller's right to, title to and interest in the property. The statute or order should also define conditions for a valid, enforceable and perfected security interest for the indenture trustee.

Legal opinions typically provided by counsel representing parties in utility tariff/stranded cost transactions are detailed in Appendix B.

To date, there have only been a limited number of utility bankruptcies associated with securitizations. Within this small subset, the securitizations continued to perform within expectations with no interference from any legislative or government entity. Since 2005, Fitch has not been aware of any utility bankruptcies that have impacted a Fitch-rated ABS transaction.

**Utility Successor Requirements**

As with any future-flow securitization, asset-generation risk or the risk that the assets (special tariffs) may not be generated as expected in the future due to the utility's inability to continue operating, is a key consideration. Fitch believes this risk is largely mitigated by successor requirements imposed by the statute/order and the essential nature of utility services.

Therefore, to effectively de-link the rating of tariff bonds from that of the utility, Fitch considers it essential that the statute or order create an obligation on the commission or the equivalent agency of the state to ensure that, in the event of the incumbent utility's sale or bankruptcy, any successor to the utility (including, but not limited to, the utility as debtor-in-possession and the reorganized utility after bankruptcy) be treated as a successor (for purposes of imposition of special tariffs on the successor's customers) and be ordered to continue servicing the tariff bonds to avoid disruption in billing and collecting.

This provides a protection if the utility merges into another entity (as was the case with Montana Power Co., which merged with NorthWestern Corporation). Moreover, in bankruptcy reorganization, the utility that emerges from bankruptcy is legally a new entity, distinct from the former company, as in the 2004 reorganizations of Pacific Gas and Electric Company and NorthWestern. Transactions that do not provide for such utility successor requirements are unlikely to meet Fitch's criteria for 'AAAsf' ratings.
Third-Party Energy Providers

In some states, third-party energy providers (e.g. non-utility power generators, energy marketers and independent brokers) are granted the right to bill customers directly, not only for the energy commodity, but also for network distribution services performed by the utility (consolidated billing). In this case, the third-party provider collects and remits back to the utility the distribution fees and special tariff to service the tariff bonds.

If the statute or order allows for third-party consolidated billing, a typical result is the imposition by the state, authority or equivalent agency of the state of minimum credit quality or collateral requirements on parties wishing to assume this service. Generally, such guidelines include setting minimum credit standards for such providers, posting cash collateral to cover a period for which revenues are at risk and/or assumption of personal liability by the third party for billed amounts, regardless of collections. Fitch expects these guidelines to define the circumstances in which a third-party provider would be replaced either by the incumbent utility or an alternate servicer. This is important as commission or the equivalent agency of the state approval is often a prerequisite for the transfer of billing and servicing responsibilities away from designated third-party energy providers under such jurisdictions.

True-Up Mechanism

The statute or order requires that the special tariff be reset periodically at least annually or semi-annually. The reset, referred to as the true-up mechanism, adjusts the special tariff to a level sufficient to ensure that the periodic bond payment requirements (PBPRs) (interest payments, scheduled principal amortization, related fees and any replenishment of any credit enhancement [CE] balances) are met. The statute or order may provide for more frequent resets, either discretionary or mandatory, based on the occurrence of certain events, such as a minimum percentage variance between projected and actual principal amortization. Several states have also provided for more frequent true-ups in the final years of the transaction’s life.

The true-up can increase or decrease the special tariff, depending on the positive or negative variance of actual tariff payments and/or energy consumption from the utility’s projections. Applications for special tariff true-ups are generally filed with the commission or the equivalent agency of the state based on updated sales forecasts for the forthcoming years. Under the statute or order, the commission or the equivalent agency of the state does not have the discretion to disapprove or alter the true-up calculation, except to correct computational or other manifest errors. Also, the commission or the equivalent agency of the state is usually obliged by the statute or order to establish special tariffs at a level sufficient to repay the debt over the scheduled term.

Under the financing order, the tariff is deemed irrevocable and prohibits any legislature, agency or governmental authority from rescinding, amending or altering the tariff that would impair or reduce the tariff value. The passed legislation includes a state impairment clause that ensures the value of the tariff cannot be altered in a negative manner until the issued bonds are paid in full.

The absence of a true-up mechanism would preclude the ability to assign a ‘AAAsf’ rating. However, to date, Fitch has not rated a utility tariff/stranded cost transaction that was structured without a true-up mechanism. When it exists, adjustment of the special tariffs through this mechanism is the most significant credit component for these transactions. However, if the regulatory framework does not provide for any adjustment or if the true-up mechanism is inadequate, additional CE, such as reserve accounts or subordinated tranches, may offset the absence of the true-up mechanism. In such instances, Fitch will place greater reliance on the outcome of its cash flow stress scenarios to demonstrate adequacy of alternate forms of CE.
Nonbypassability

The special tariff is usually assessed as a charge on electric, water or gas delivery, applicable to the monopoly retail utility service. Therefore, regardless of which gas, water or electricity provider supplies the commodity delivered to the customer, the special tariff will be collected based on delivery service. This type of special tariff is frequently referred to as a network charge, since it applies to service over the utility’s wire or pipeline system.

When customers are able to choose an alternative gas, water or power providers, they need to be connected to the distribution system, whether for primary or backup service, tends to limit their ability to bypass the special tariff. Customers can avoid the special tariff by changing their consumption of energy so that they are not using the distribution system or by moving out of the service area.

The statute generally provides that the special tariffs are nonbypassable, implying that a utility can collect these charges from all existing retail customers and all future retail customers within the service territory without any (or with a few) exceptions. Instances where covenants related to nonbypassability that allow for weaker provisions (that allow for significant exceptions) would not be consistent with a ‘AAAsf’ rating.

If the statute contains provisions that allow for significant exceptions, Fitch will apply more severe variance stresses to the related customer classes in its cash flow scenarios. However, the complete exclusion of nonbypassability provisions will likely preclude a transaction from receiving a ‘AAAsf’ rating, since it would introduce significant uncertainty in future cash flows, which would be difficult to quantify in cash flow stresses.

Credit Analysis

Since the cash flow supporting the tariff bonds is generated by payments from all or designated categories of customers in the utility’s service territory, it is important to analyze the composition of the service territory to determine the size and usage level of the customer base, customer delinquencies, regional economic sensitivities and weather-related seasonality.

Customer Base

The size and variability of the customer base have a significant potential effect on cash flows to the bonds. Fitch reviews a number of economic factors in its analysis of the customer base, including the size and shape of the service territory (the geographic footprint), diversity of the customer pool, change in housing starts during recessionary periods, exposure to key industries, cyclicality of key industries, historical recessionary bankruptcy data and existence of any major military bases in the territory. These qualitative factors help Fitch develop an understanding of the utilities’ customer base, which, ultimately, provides the cash flows to pay the liabilities of the

Credit Checklist

- Composition of the customer base.
- Customer concentrations in commercial and industrial segments and customer class cross-collateralization.
- Regional industrial concentrations.
- Strength of the regional economy.
- Geographic footprint.
- Seasonality and cyclical.
- Size of the dedicated special tariff and effect on the all-in cost to consumers.
- Development of alternative energy-generation technologies.
- Opportunities for self-generators to disconnect from the power grid while maintaining exemption to special tariffs.
trust. In general, a utility’s customer base is segmented into four primary segments — residential, commercial, industrial and government.

The residential segment will provide a high level of customer diversification, similar to that found in credit card receivables ABS transactions. Since the special tariff is assessed against a household rather than an individual, it is assumed that the majority of residents moving away from a service territory will be replaced with new residents. Thus, the residential segment tends to be a large, diversified and relatively stable source of cash flow.

Industry and individual commercial concentrations are also assessed, as the utility’s commercial and industrial customers may represent significant concentration in the customer base. These customers tend to be fewer in number and contribute higher tariff revenues per account than residential customers. The government segment has historically represented a lower percentage of usage but can be exposed to government appropriation risk. Fitch incorporates the risks associated with customer concentrations in its cash flow stress tests.

Risk is greater if responsibility for specified portions of the securitized special tariffs is assigned to particular customer classes, including one or more classes with relatively few customers. Risk is mitigated if all customer classes bear responsibility through the true-up mechanism to pay in full the securitized special tariffs. In this case, the customer classes are said to be cross-collateralized.

An example of customer class concentrations is depicted in the table below. Of note, residential customers represent 50.0% of consumption and 43.3% of billed revenue. The industrial class represents 30.0% of consumption and 26.7% of billed revenue. The remaining customer concentration resides in the commercial customer class, which represents 20.0% and 30.0% of total consumption and billed revenue, respectively.

Due to the concentration diversity, the cross-collateralization softens the impact of reduced consumption in the event usage within a specific customer class declines. While utility service areas are typically diversified in regards to customer classes, Fitch may incorporate additional stresses on a nondiversified pool. In particular, if the customer base concentrations are outside historical levels for the utility, a higher stress would be considered to account for the change in concentrations. For example, in a pool with a high concentration of commercial customers and no industrial customers, Fitch may apply a similar stress on the commercial customers as described in the No-Industrials Stress section detailed on page 14 of this report.

<table>
<thead>
<tr>
<th>Customer Class</th>
<th>Consumption (kWh)</th>
<th>% of Total</th>
<th>Retail Billed Revenues ($000)</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>500</td>
<td>50</td>
<td>650,000</td>
<td>43.3</td>
</tr>
<tr>
<td>Commercial</td>
<td>200</td>
<td>20</td>
<td>450,000</td>
<td>30.0</td>
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<tr>
<td>Industrial</td>
<td>300</td>
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<tr>
<td>Total</td>
<td>1,000</td>
<td>100</td>
<td>1,500,000</td>
<td>100.0</td>
</tr>
</tbody>
</table>

kWh – Kilowatt hours. Note: Numbers may not add due to rounding.

**Size of Dedicated Tariff Component**

Fitch believes that when the special tariff dedicated to servicing the bonds is a relatively small portion of customers’ all-in cost of utility service, increases in the special tariff under the true-up mechanism are less likely to reduce consumers’ demand for utility services or to stimulate consumers to adopt alternative, off-the-grid energy services (see the Self-Generation and Alternate Technologies section, starting on page 19). If the special tariff is large or total rates are high, customers may have a greater economic incentive to invest in alternative energy technologies, reduce their consumption, become self-generators or seek political or legal overturn. It is
unfavorable from a credit viewpoint if the special tariff represents a significant portion of the total delivered cost of utility services, especially if it may affect the economic competitiveness of major industrial customers in the utility’s service area.

Fitch incorporates an analysis that attempts to stress pools with high industrial customer class concentration. The analysis tests the ability of the transaction to withstand the complete loss of consumption from the industrial class, assuming base case conditions hold. Where special tariffs are cross-collateralized within the utility’s service territory, consumption shortfalls for a customer class (such as industrial) can be corrected with a true-up across customer classes.

Fitch believes that special tariffs (under all scenarios) in excess of 20% of the customer bill over a long financing term would generally be inconsistent with a ‘AAAsf’ rating. In circumstances where the special tariff exceeds the 20% threshold, the likelihood of full principal payment by the legal final maturity would not be consistent with a ‘AAAsf’ rating. In circumstances where multiple tariffs are charged to one specific service area, Fitch will take into consideration the aggregate amount of tariffs.

For example, if a utility issues multiple securitizations, the 20% threshold would apply to the aggregate tariffs from all the securitizations. This is a guideline utilized by Fitch based on the premise that, as long as special tariffs continue to represent a small percentage of an average customer bill, the potential for political or regulatory challenge is substantially diminished, and the reliability of the true-up mechanism as the primary source of CE is preserved.

### Structural and Cash Flow Model Analysis

#### Transaction Structure

At closing, the seller, which is typically the utility, transfers its ownership interest in the property rights to a bankruptcy-remote SPV (usually a limited liability company) that serves as the issuer of the securities.

The SPV, pursuant to its statutory or regulatory authorization, will grant a first-perfected security interest in the tariff property to a trustee on behalf of bondholders. The flow chart at right summarizes the basic structure for these transactions.

Tariff bonds issued by the SPV may be tranched into multiple classes of self-amortizing bonds with serial maturities. The principal amortization schedule may be structured as level, mortgage style or variable payments. The key to assessing the appropriate amortization schedule is to determine that proposed payments are consistent with forecast seasonal fluctuations in collections.

While the projected principal amortization schedule is established at closing, principal shortfalls generally do not trigger an immediate default under the transaction documents. If there is a periodic...
reset, the true-up mechanism is used to make up for any prior shortfalls in interest, principal, fees or any CE balances so that principal shortfalls are compensated by tariff adjustments on the true-up filing anniversary immediately succeeding such shortfall (or sooner if permitted by the order).

Fitch evaluates the relationships of all aspects of the structure in developing the rating for tariff bonds. However, certain structural factors are given greater weight. For example, if the authority to impose the special tariff expires after a specified date, the final maturity date for the bonds is expected to fall within the maximum term of the tariff, as defined by the statute or order. Back-ended principal payments (e.g. mortgage-style amortization) may increase risk toward the end of the term. Also, given the technology risks associated with tariff bond transactions, Fitch applies more challenging cash flow stress scenarios for longer-term bonds (see the Self-Generation and Alternate Technologies section, starting on page 19, and the Cash Flow Modeling section on page 10).

Credit Enhancement

The primary form of CE for tariff bonds is the true-up mechanism, which requires that the commission or the equivalent agency of the state review and adjust the special tariff periodically to correct any undercollections or overcollections. The true-up mechanism, along with the essential nature of utility services, help mitigate the cash flow variability that may be present in a utility tariff/stranded cost transaction. Traditional CE, such as cash reserves or overcollateralization, tends to be relatively small (historically 0.5%–1.5% of the initial principal amount).

Fitch considers this minimum amount of enhancement as sufficient to achieve ‘AAAsf’ ratings for bonds structured with an adequate true-up mechanism, since cash flow variability is mitigated by the periodic true-ups and the essential nature of utility services. Traditional CE would be necessary to cover any timing gaps between when the bond payment is due and when the tariff true-up occurs. These traditional forms of CE are detailed in Fitch’s “Global Structured Finance Rating Criteria,” which discusses the various forms of CE and risks inherent in each. Therefore, it is important to understand the terms of the true-up mechanism and the overall bond structure. Fitch will review the relevant CE structure, including the true-up mechanism in each transaction and replicate it within the agency’s cash flow model.

In addition to the true-up mechanism, other forms of CE typically included in the structure of tariff bonds are reserve, or excess funds, subaccounts and capital subaccounts. Reserve subaccounts are funded with excess spread, to the extent available, in each reporting period, which may have required levels based on the outstanding debt level. Alternatively, capital subaccounts are funded at transaction closing. Subaccounts are established to cover timing mismatches of collections and required payments. Withdrawals from subaccounts may occur to cover payment shortfalls. Following withdrawals, the capital and overcollateralization subaccounts are replenished in subsequent periods to the extent excess funds are available.

However, for reserve subaccounts, the true-ups are either calculated to utilize and eliminate all remaining amounts lest the tariff over-collections from customers or, in some cases, to replenish the reserve subaccounts to a required level. While the true-up mechanism adjusts the special tariffs at least annually, ideally, any cash flow shortfalls are expected to be recovered by the end of the following year.

Historically, volatility in tariff charges for Fitch-rated transactions has been limited. In cases where there is a large move in the tariff because of a true-up (accounting for large over/under-collections), this scenario has been short lived, as the tariff was adjusted at the next true-up date. Furthermore, the majority of Fitch-rated transactions are allowed to true-up more frequently if performance was significantly outside of expectations. The capital subaccount typically represents a small percentage of the initial principal balance, providing some liquidity in the early
stages of the deal, in addition to support toward the end of the transaction. Although back-end credit support is generally provided by available subaccounts, ultimately, the true-up mechanism is the primary credit support for most utility tariff/stranded cost transactions.

Sizing of the CE depends on the terms of the true-up mechanism, bond structure and strength of cash flows. For example, bonds structured with back-ended principal amortization may need higher CE in the early years to compensate for lower interest coverage. If bonds were structured without a true-up mechanism, substantially higher CE levels would be expected.

**Collection Accounts**

An indenture trustee establishes collection accounts into which all special tariff collections will be deposited. The frequency of the utility's deposits to the collection accounts will depend on commingling provisions, as described in the Counterparty Risk section on page 15. Funds held in these accounts will pay transaction fees and expenses, principal and interest and any overcollateralization requirements on a monthly, quarterly or semi-annual basis. Any excess cash collected is normally held in a reserve account and, if applicable, incorporated in the calculation of the next true-up.

**Cash Flow Modeling**

Fitch integrates the primary asset- and liability-side data presented in each structure into its internal proprietary tariff bond cash flow model. The assumptions embedded in the cash flow model are based on the proposed structure and terms outlined in the order. Such an approach provides Fitch with a consistent basis for comparison across different transactions. However, while the cash flow model is an important consideration in determining the final rating, ratings are ultimately assigned by a Fitch rating committee, which takes into consideration both quantitative and qualitative factors.

While forms of cash flow models vary based on the structure of the bond, as well as the statutory and regulatory framework, the models address fundamental credit issues common to all securities in this asset class. Cash flow models incorporate: the forecast energy consumption (by customer class); assumptions on collections and chargeoffs; the true-up mechanism, including the mandated frequency of true-ups and any allocation factors specified by the order; billing and servicing risks posed by third-party energy providers, if applicable; special tariffs by customer class; CE; and PBPRs.

**Modeling Methodology**

When analyzing tariff bond transactions, Fitch assumes a permanent and appreciable decline in consumption attributable to various factors, including economic recessions, demographic shifts, co-generation, energy conservation and forecasting errors. Fitch's cash flow stress methodology aggregates these multiple contributory factors and applies a single variance percentage to cash collections to determine if revenue declines from adverse consumption variances are offset in subsequent periods by the application of the true-up mechanism.

**‘AAAsf’ Stress**

Fitch has only assigned ‘AAAsf’ ratings in this sector; therefore, Fitch's new issue methodology only addresses ‘AAAsf’ rating outcomes. Fitch's new issue methodology includes two stresses, the 'AAAsf' stress and no-industrials stress, as described below. To assign 'AAAsf' ratings, the special tariff cannot be in excess of 20% of the customer bill under both stress scenarios. Fitch’s ‘AAAsf’ stress case stresses the following key model variables, each of which is meant
to incorporate multiple risk factors previously described and results in a reduction in cash flows below projections.

**Stress Forecast Variance**

The first stress variable is applied as a stressed forecast variance to projected consumption. The consumption forecast is provided by the utility (issuer) to Fitch. The stressed variance is intended to incorporate the effect of an economic recession, extreme weather changes, changing usage patterns or general demographic shifts. The ‘AAAsf’ stressed forecast variance is set at 5.0x the historical five- to 10-year peak absolute forecast variance (i.e. the largest variance, whether the forecast was too high or too low). As a further stress, these stressed variances were applied to the first year and increased 1% annually thereafter for the first 10 years, then by 1.5% for the next five years and 2% thereafter.

Fitch believes the ‘AAAsf’ stresses appropriately account for potential asset deterioration from future weakness in the U.S. economy. If five to 10 years of historical forecast data are not available, Fitch will review the available history but may apply higher multiples to adjust for limited data.

**Reforecasting Stress**

Fitch assumes that, even as actual consumption declines below original forecasts (by the stressed forecast variance above), the utility does not promptly rectify its original forecasts to reflect this adverse variance. Specifically, this stress assumes that a revision of original forecasts (or a reforecasting process) will only commence two years after the stressed forecast variances take effect. Thereafter, forecasts will be aligned with actual experience. However, in the interim two-year period, an inadequate true-up adjustment will occur, resulting in additional cash flow stresses.

**Self-Generation/Technology Risk**

Fitch assumes that technological uncertainty increases over time, especially for commercial and industrial customers. This would subsequently increase the risk of self-generation or adoption of alternate energy sources as greater technological options become available. To incorporate this risk, Fitch assumes that the stressed variance increases exponentially over the term of the bonds, based on the perceived risk of self-generation or alternate energy sources for the utility’s customer base. In some states, the special tariff is imposed even if a consumer switches to self-generation. However, Fitch does not incorporate forecast consumption from this source in its cash flow analysis. In circumstances where consumption has increased or expected to increase, Fitch will consider incorporating additional stresses in the agency’s stressed cash flow scenarios, such as the application of a higher multiple to the 10-year peak consumption variance in the ‘AAAsf’ stress scenario.

**Delinquency Rates**

To incorporate the effects of delinquency rates on forecast collections, Fitch reviews the utility’s historical delinquency experience and applies a 5.0x multiple to the highest delinquency period. If the transaction uses a collections curve, Fitch assumes delays in actual collections beyond the collections curve.

**Chargeoffs**

Despite utilities’ historically low chargeoff ratios, Fitch applies chargeoff ratios at 5.0x the five- to 10-year historical peak chargeoff. The historical data to be analyzed may vary based on the credit quality and term of the deal.
Successor Servicer Fee

The ‘AAAsf’ stress case assumes that a successor servicer is appointed at closing. Accordingly, a higher successor servicer fee (provided for in transaction documents or as specified in the order) is utilized for purposes of cash flow modeling.

To date, only a limited number of servicers have experienced significant credit-related distress. Fitch believes there is a market for backup servicing within this sector. However, there have been limited servicer transfers in prior bankruptcy cases. Due to the essential-use nature of a utility, the servicer was mandated to continue to service their portfolios, having no impact on securitization performance. Fitch has not been aware of any utility bankruptcies that have had a material impact on Fitch-rated ABS transactions.

Billing Risk

Fitch assumes that, each year, cash flows relating to the month with the largest billed amount are fully written off due to a servicing disruption event.

Additional ‘AAAsf’ Stresses (If Applicable)

Third-Party Billing Agent Default

In jurisdictions where third-party energy providers are allowed to perform consolidated billing, the ‘AAAsf’ stress model incorporates a test of the transaction’s maximum exposure to third-party collections. To test the effect of a potential third-party default, the stress case assumes third parties take over billing for a large percentage of the customer base and default each year for the entire term of the bonds. The length of the assumed default and percentage of the customer base affected vary based on the third party’s commingling restrictions contained in the statute or order.

Franchise Fee Stress

In certain jurisdictions, franchise agreements between a utility and municipality are required for the utility to use the municipality’s right of way (public property) and establish a transmission and distribution system within that particular service area. In circumstances where the utility has entered into franchise agreements permitting it to provide service to municipalities (or parishes) in exchange for a franchise fee, an implied loss is added to base case chargeoff rates, as described below.

Franchise fees payable to a municipality by a utility are typically recoverable from customers. The franchise fee stress assumes that the portion of franchise fees recoverable from customers in applicable municipalities (as a percentage of the total base revenue of the utility) is not recovered. For example, if $5.00 is recoverable from customers as a franchise fee and the total base case revenue of the utility is $1,000.00, 0.5% is modeled as an implied loss. The implied loss (0.5%) is added to the base case chargeoff level (say, 2.0%) to arrive at 2.5% and a 5.0x multiple is applied to it, resulting in a ‘AAAsf’ modeled chargeoff rate of 12.5%, instead of 10.0%.

Interest Rate Risks

Fitch will identify any underlying interest rate mismatches in a proposed transaction and analyze the extent to which these positions are mitigated through the transaction’s hedging structure, if any. Fitch expects any relevant hedge counterparties to be consistent with Fitch’s “Structured Finance and Covered Bonds Counterparty Rating Criteria,” and “Structured Finance and Covered Bonds Interest Rate Stresses Rating Criteria,” available on Fitch’s website at www.fitchratings.com.
Example: XYZ Trust Series A

<table>
<thead>
<tr>
<th>Period</th>
<th>Residential</th>
<th>Commercial</th>
<th>Industrial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Years</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1,000</td>
</tr>
<tr>
<td>Year 0</td>
<td>500</td>
<td>200</td>
<td>300</td>
<td>1,010</td>
</tr>
<tr>
<td>Year 1</td>
<td>505</td>
<td>202</td>
<td>303</td>
<td>1,020</td>
</tr>
<tr>
<td>Year 2</td>
<td>510</td>
<td>204</td>
<td>306</td>
<td>1,020</td>
</tr>
<tr>
<td>Year 3</td>
<td>515</td>
<td>206</td>
<td>309</td>
<td>1,030</td>
</tr>
</tbody>
</table>

Illustrative Example

To illustrate the application of the ‘AAAsf’ stress case, a hypothetical tariff bond transaction has been created — XYZ Trust Series A, with XYZ Utility Co. as the sponsoring utility. As shown in the table below, XYZ Co. provides electric service to three customer classes (residential, commercial and industrial), which accounted for 50%, 20% and 30% of total consumption in that service territory, respectively, as of the closing date.

Calculation of the Special Tariff at Each True-Up Period

The special tariff is assessed against each customer bill based on consumption (energy usage in kilowatt hour [kWh]) and is required to be adjusted via the true-up mechanism once every year. The order establishing the special tariff also stipulates that the revenue burden each period, or the PBPR, of $10 be allocated among the three customer classes in a specific proportion. These relative revenue proportions are referred to as allocation factors and are stipulated in the order.

The initial allocation factors require that the PBPR be allocated 30%, 30% and 40% among the residential, commercial and industrial customer classes, respectively. The order allows for allocation factors to be updated periodically to reflect changes in average demand across customer classes over time and to facilitate cross-collateralization across customer classes. However, for purposes of cash flow modeling, the cash flow model may assume that allocation factors remain fixed, which creates higher volatility in the special tariffs than would actually occur.

As the expected distribution of consumption by customer class need not match the prescribed distribution of revenue burden by customer class, a uniform special tariff cannot be levied across all customer classes. Therefore, on each true-up date, the model solves for a special tariff applicable to each of the three customer classes, which would not only be sufficient to meet the PBPR but also maintain the integrity of the two relative distributions described above. Based on this methodology, the initial special tariffs are 0.6, 1.5 and 1.3 cents/kWh for the residential, commercial and industrial classes, respectively.

‘AAAsf’ Stress Variables

Fitch first applied a multiple of 5.0x to XYZ Co.’s historical 10-year peak consumption variance of 5%, 2% and 10% experienced in the residential, commercial and industrial classes, respectively. For the residential class, this translates into a stress forecast variance of 25% in year 0, which means that only 75% (i.e. 375 kWh) of the original forecast consumption of 500 kWh is realized. This stressed variance is then increased 1% annually until it reaches 28% on the legal final maturity date (year 3).
A special tariff of 0.6 cents/kWh is levied on the stressed consumption levels (for the residential class), resulting in lower billed revenues relative to the base case. To address billing risk, Fitch assumed that 100% of the billed revenue for the peak billing month (say, September) in each year is written off with no recovery. Next, to model delays in the collection of billed revenues, the collection curve is lengthened such that 50% of the amounts billed for the first two months are subject to a 30-day delay. Fitch also applied a 5.0x multiple to peak chargeoffs of 2%, resulting in stressed chargeoffs of 10%. Additionally, the increased successor servicer fee of 1% (the maximum fee permitted by the order) was utilized for purposes of cash flow modeling.

Fitch AAAsf Stress Scenario

<table>
<thead>
<tr>
<th>Stress Variable: Variance and Consumption Stress</th>
<th>Residential (%)</th>
<th>Commercial (%)</th>
<th>Industrial (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Absolute Total Variance (10-Year Historical)</td>
<td>5</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>AAAsf Stress (5.0x Highest Absolute Variance)</td>
<td>25</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>% Increase in Variance Stress Each Year</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>AAAsf Variance (%)</th>
<th>AAAsf Consumption (%)</th>
<th>AAAsf Variance (%)</th>
<th>AAAsf Consumption (%)</th>
<th>AAAsf Variance (%)</th>
<th>AAAsf Consumption (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 0</td>
<td>25</td>
<td>375.0</td>
<td>10</td>
<td>180.0</td>
<td>50</td>
<td>150.0</td>
</tr>
<tr>
<td>Year 1</td>
<td>26</td>
<td>373.7</td>
<td>11</td>
<td>179.8</td>
<td>51</td>
<td>148.5</td>
</tr>
<tr>
<td>Year 2</td>
<td>27</td>
<td>372.3</td>
<td>12</td>
<td>179.5</td>
<td>52</td>
<td>146.9</td>
</tr>
<tr>
<td>Year 3</td>
<td>28</td>
<td>370.9</td>
<td>13</td>
<td>179.3</td>
<td>53</td>
<td>145.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stress Variable: Delinquency Stress</th>
<th>Base Case (%)</th>
<th>AAAsf (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid on Due Date</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>One Month Overdue</td>
<td>44</td>
<td>42</td>
</tr>
<tr>
<td>Two Months Overdue</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Three Months Overdue</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Four Months Overdue</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Five Months Overdue</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Six Months Overdue</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Never Collected</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Chargeoff Stress (5.0x Historical 10-Year Peak Chargeoffs)</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Servicer Fee: Successor Servicer Fee</td>
<td>0.25</td>
<td>1.00</td>
</tr>
<tr>
<td>Billing Risk</td>
<td>N.A.</td>
<td>One-Mo. Writeoff</td>
</tr>
</tbody>
</table>

*AAAsf consumption equals base case consumption times one minus variance. N.A. – Not available.

No-Industrials Stress

This case is designed to test the risk from self-generation and new technologies, which is more inherent in this asset class. In service territories deemed to have industrial concentrations, Fitch tests the ability of the transaction to withstand the complete loss of consumption from the industrial class, assuming base case conditions hold. Stress tests may be further customized for specific industry concentrations that pose higher than normal credit and/or cogeneration risk.

The goal of this scenario is to analyze the impact on peak special tariffs for residential, commercial and other customer classes if all the industrial customers were to leave the service territory upon a transaction's closing.

Rating Sensitivity Analysis

Fitch’s rating sensitivity analysis seeks to determine the break-even rate of consumption decline a transaction could withstand before leading to a default in the payment terms of the transaction. In its analysis, Fitch utilizes its cash flow model to decrease the rate of consumption in 1% increments until the amounts collected are no longer enough to meet the minimum interest required each period or fully repay principal by the legal final maturity date.
(provided that nonpayment of principal according to the amortization schedule does not constitute an event of default under the bonds).

Fitch’s sensitivity analysis is reviewed to understand the amount of adverse consumption variance that the transaction could withstand in a situation of a material decline in electricity demand. The goal of this scenario is to stress only one variable, the variance in consumption; therefore, all other assumptions should be consistent with the base case.

Generally, the period between the transaction closing date and first payment date is the most sensitive to consumption declines. This is because reduced tariff collections resulting from significant declines in consumption early in a transaction’s life cannot be corrected until the first true-up date. Also, first payment dates often tend to follow more than six months after the transaction’s close, as opposed to normal semi-annual payments, allowing for greater declines in consumption than would typically be expected from a six-month payment interval. The exact cases developed to achieve this goal will vary by transaction.

Counterparty Risk

The following section highlights some counterparty risks to utility tariff ABS transactions. However, Fitch’s counterparty analysis should be considered in conjunction with the relevant counterparty risk criteria. For more information on counterparty risk, refer to Fitch’s “Structured Finance Transactions and Covered Bonds Counterparty Rating Criteria,” which includes Fitch’s rating criteria for assessing the operational risk of servicers of structured finance products, including ABS.

Commingling

As tariff charge remittances are received by the utility (as servicer), transaction documents may allow for commingling of such remittances with the utility’s funds for a short period. This presents the risk that, in the event of servicer bankruptcy, such remittances could be deemed to be part of the utility’s bankruptcy estate. However, in accordance with Fitch’s counterparty criteria, the agency views this risk as being largely mitigated because of utility tariff/stranded cost ABS’ waterfall structures, which generally allow principal payments to be used to pay interest, while subsequent scheduled principal amortization shortfalls are covered via the true-up mechanism (Fitch’s counterparty criteria stipulate that supplementary CE, in this case, the true-up mechanism, can be sufficient to address short-term commingling risk.)

Transactions that do not allow for principal to pay interest or contain other structural features that negate this mitigant are expected to follow the requirements governed in Fitch’s counterparty criteria. To date, Fitch has not rated a utility tariff/stranded cost transaction that did not allow for principal to pay for interest. Moreover, as described in Fitch’s Cash Flow Modeling section on page 10, its ‘AAAsf’ stress scenario includes stresses that are intended to address each transaction’s ability to withstand servicing disruptions. Additionally, remittances are received on a daily basis, not clustered in a small number of days during any given month, and then transferred from the utility to the transaction-specific lock box within a short period (in most cases, within two business days). This limits the likelihood of a substantial amount of trust cash flows being commingled with the utility’s other collection accounts.

Seller/Servicer (Utility Provider) Operational Analysis

Fitch recognizes that the quality, stability and financial condition of the seller/servicer’s operations have a meaningful impact on the performance of utility tariff/stranded cost ABS transactions. Fitch’s
utility tariff/stranded cost/stranded cost ABS ratings include an evaluation of the seller/servicer. Historically, these transactions are serviced by the originator (the utility) of the assets. Fitch considers the servicing disruption risk low for the sector given the relative ease of servicing these type portfolios, established servicing standards, essential use nature of utilities and limited instances of bankruptcies. In the two instances where the utility filed for bankruptcy, the court affirmed the bankruptcy due to the essential use nature of electricity and allowed the utility to continue to charge and service the special tariff.

For these reasons, Fitch does not usually look for backup servicing arrangements or similar risk mitigants in its analysis. However, if servicing continuity risk is present (e.g. weak servicer credit quality and limited servicing experience), Fitch will analyze the servicing disruption risk in line with criteria outlined in its “Structured Finance and Covered Bonds Counterparty Rating Criteria” report, which typically calls for other mitigating factors, such as backup servicing arrangements, to maintain high investment-grade transaction ratings.

The utility is normally designated to act as servicer for the bonds, performing activities such as billing, calculating and collecting the tariff; calculating and filing for true-up adjustments; and forecasting sales and usage. In circumstances where a third-party energy service company performs consolidated billing, the utility functions as master servicer to consolidate and supervise collections from third parties. Utilities normally have extensive experience in the functions necessary to act as servicer. Also, a utility’s ability to terminate utility services to nonpaying consumers is a strong incentive for bill payment. Additionally, the utility has an ongoing interest in continuing to perform billing and collection services, since it retains the majority of the total tariff. As such, Fitch’s review of the seller/servicer focuses primarily on the utility provider.

Fitch expects to conduct a review of the utility’s operations, including its credit evaluation processes, usage forecasting and servicing divisions, combined with a corporate review, prior to assigning ratings for new issuers. These reviews are often completed in conjunction with Fitch’s Corporate Global Power and ABS groups. Fitch’s operational analysis focuses on three main factors:

- corporate performance, including operational and financial stability;
- the capabilities and quality of credit evaluation processes and usage forecasting; and
- the capabilities and quality of servicing operations.

Given the essential use nature of utilities, there have been limited instances of bankruptcies that have led to servicer transfers. Furthermore, the servicing is generally uniform across utilities allowing for relative ease of servicing transition, if required. As such, Fitch typically does not complete post-close operational reviews. However, if unique circumstances arise such as significant changes in utilities’ staff or operational changes that could have a negative impact of the transactions performance, Fitch would speak with senior management to gain an understanding of the changes and assess the impact on servicing.

**Corporate Overview**

An understanding of the company’s history, structure, strategic objectives, management experience and funding capabilities is key to the operational review undertaken by Fitch. Ultimately, the servicer’s strength affects Fitch’s performance expectations, as well as its counterparty risk analysis.

Fitch believes that the financial condition of a company/servicer has a direct impact on the stability of its operational platform and, ultimately, on the performance of utility tariff/stranded cost ABS transactions. Fitch considers several factors and quantitative metrics in reviewing a company’s financial condition to assess a seller/servicer’s business viability, operations and
financial health. These include available public credit ratings and, if not available, internal credit evaluation will be conducted by Fitch. For companies not rated by Fitch, the agency expects to receive at least three years of audited financial statements, history of profitability and sources and levels of capital and liquidity.

As part of the evaluation, Fitch reviews merger/acquisition activity, expansion plans or intentions to exit or scale back specific businesses that could influence operating performance. Aggressive growth objectives involving acquisitions require greater scrutiny of the utility's volume capacity and resources, as well as integration planning and execution.

While a sub-investment-grade utility may be an acceptable servicer based on its operational qualifications, Fitch expects the transaction to provide for the right to replace the utility with an alternate servicer in the event of a decline in credit rating, insolvency or failure to perform any of the duties of servicer. The order and/or transaction documents typically incorporate a successor servicer fee sufficient to adequately compensate a backup servicer that takes on this role.

Although Fitch views positively such backup servicer provisions in transaction documents, the lack of such provisions per se is not likely to limit a potential 'AAAsf' rating. However, as explained in the Utility Successor Requirements section on page 4, Fitch views it as imperative that the statute or order create an obligation on the commission or the equivalent agency of the state to ensure that, in the event of the incumbent utility's sale or bankruptcy, the successor to the utility (at the very least) be ordered to continue servicing the tariff bonds.

Fitch looks at the experience and tenure of the underwriting and servicing employees on three levels — senior management, middle management and staff. Employee hiring, turnover and retention are important issues reviewed, as are the stability and depth of the management team. Training programs are included in the evaluation of a seller/servicer.

Fitch may adjust or cap the ABS ratings issued on a securitization, adjust base case assumptions or decline to rate a transaction in cases where the agency believes it is merited based on its review of the utility. Reasons for doing so could include poor financial or operational strength and/or low corporate rating/credit assessment of an issuer/servicer/parent; inadequate ability or lack of experience in servicing or operational ability; and inadequate financial, operational or performance data/information provided by the applicable party.

Credit Evaluation

Under state law or regulations, a utility is typically required to provide service to all customers, regardless of the customers' creditworthiness. In some states with dramatic swings in temperature, utilities may be prohibited from disconnecting service during extremely hot or cold seasons. For these reasons, an important factor in a utility's assessment of its customers is the utility's requirement of additional security from riskier customers. These riskier credits could result in higher delinquencies and losses, which would need to be accounted for in Fitch's stress cash flow assumptions. If service cannot be denied, most utilities require a security deposit for new customers or those who pose a greater credit risk.

Forecasting

Since scheduled principal amortization is based on the utility's sales forecasts, it is important to assess the utility's forecasting ability and accuracy. Utilities generally maintain econometric models that relate historical values of energy variables to measures of the weather, economy and number of customers. Fitch reviews the utility's actual sales for prior periods relative to historical sales forecasts to determine the peak unfavorable forecast variance and the reasons for such variance for each
customer class included in the securitization. These results are used in the cash flow stress scenarios, as outlined in the Cash Flow Modeling section and stress cases, starting on page 10.

**Collections, Delinquencies and Chargeoffs**

The utility is expected to have a well-established process for pursuing and collecting delinquencies. However, since customers consider electricity or gas for heating an essential service, historical chargeoff and delinquency rates for utilities tend to be relatively low, compared with other consumer assets. It is not unusual for utilities to experience 0.50% average chargeoffs for a 20-year period. An important factor in the evaluation is whether the delivery utility is able to disconnect service for nonpayment, even if a third-party energy provider is supplying power. In some states, the ability to disconnect may be delayed or prohibited in the case of a third-party supplier, resulting in higher delinquencies and chargeoffs.

**Sample Collections Curve — % of Billed Revenues Collected**

![Sample Collections Curve — % of Billed Revenues Collected](image)

**Billing and Remittances**

Typically, the special tariff is billed by the utility as a separate line item on the customer’s bill, but, in some cases, it is bundled into a single aggregate charge and not specifically identified on the bill. The utility’s billing systems are expected to be able to incorporate multiple components of billing information. As part of the rating process, Fitch reviews the utility’s billing systems to determine whether they are adequately prepared to identify the special tariffs and track collections.

When the special tariff is billed and collected by the utility as servicer, along with other charges that belong to the utility, it is the responsibility of the utility as servicer to calculate the proportion of collections that belong to the SPV. Absent billing and remittance processing systems that permit the utility as servicer to identify the proportion of the bill payment by each individual consumer corresponding to the special tariff and remit the actual collections, most transactions use an alternate approach to allocate collections to the SPV.

A common alternative is the use of a collections curve to approximate the actual collections. A collections curve specifies the required percentage of each bill that must be remitted to the trust. The curve is calculated by the servicer based on an

**Servicer Checklist**

- Forecasting methods and accuracy.
- Procedures for assessing customer credit.
- Collections process, notice and disconnection policy.
- Historical delinquency and chargeoff data.
- Billing systems.
- Procedures for coordinating with third-party energy providers (if applicable).
- Limitations on commingling of securitized tariffs.
- Requirements and fees for alternate servicers.
historical average percentage of bills collected by month, with percentages adjusted periodically based on updated collections experience.

Another method utilized to approximate actual collections is to remit estimated collections based on the utility’s historical experience of the average number of days customers’ bills remain outstanding. Similar to the collections curve method, the percentages of days outstanding are adjusted periodically to reflect more recent collections experience.

Self-Generation and Alternate Technologies

Because the special tariffs are assessed on energy delivery services, the market entrance of alternative energy providers is not expected to affect tariff receipts. However, in some jurisdictions, customers could potentially avoid payment of the special tariff by performing energy generation on site and disconnecting completely from the distribution grid in the case of electricity or switching to an alternate fuel in the case of natural gas.

Tariff bonds are subject to a potential risk if a substantial number of electric power consumers switch to existing or new technologies to generate power for their own use (called self-generation or autoproduction) or purchase power from a local source delivered without the use of the utility network. In aggregate, these decentralized sources are known as distributed generation. Based on data provided by utilities within the utility tariff/stranded cost ABS sector, Fitch considers it unlikely that a significant portion of the customers will implement self-generation or distributed generation immediately or that alternative technologies will develop sufficiently within the next five to 10 years to allow for widespread disconnection from the utilities’ grid.

Performance Analytics

After a rating has been assigned by Fitch, the ongoing monitoring of such rating is transitioned to a primary analyst. The analyst is responsible for collecting and analyzing relevant transaction data and presenting collected information to a rating committee, as described below. Although monitored upon receipt of a servicer certificate, each transaction is reviewed at least once annually. Fitch will investigate and resolve any identified potential data issues prior to proceeding with the analysis of that transaction. If data critical to the analysis are unavailable or determined to be insufficient, Fitch may consequently withdraw the related ratings.

Fitch expects to receive periodic servicer certificates, received at least annually, to be utilized in its review process. Servicer certificates and performance for every transaction are tracked on a quarterly or semi-annual basis, depending on bond payment frequencies. Based on performance data, if bonds are not amortizing as expected or if capital or overcollateralization subaccounts are not at levels required by the transaction’s documentation, an analyst will make inquiries with the issuer, possibly triggering an in-depth review. Transaction-specific performance is published on Fitch’s surveillance website. Metrics such as bond amortization, collections and CE levels are tracked and available to investors.

Utilizing the data gathered from the servicer certificates and aggregated on Fitch’s internal database, the analyst evaluates the various performance metrics listed above, as well as the evaluation of microeconomic and macroeconomic issues affecting the issuer. These metrics are compared with initial expectations and industry/sector trends. Fitch will contact the servicer/issuer if additional detail is needed regarding performance changes within the transaction. Additional information requests may include further tariff detail, billing collections and color on consumption variance.

Furthermore, Fitch expects to receive data demonstrating the size of the tariff charge relative to the total customer bill to verify that the charge is not approaching threshold levels. To date,
Fitch has not employed the use of its cash flow model as part of the review process, as other performance measures as described above are sufficient for Fitch's analysis. Given the effectiveness of the true-up mechanism in all Fitch-rated transactions, there have not been any negative rating actions taken in this sector. However, in a circumstance where the true-up does not provide adequate credit support, resulting in shortfalls in the subaccounts, significant changes in amortization and an increase in the tariff beyond the 20% threshold, a more in-depth review of the transaction would be completed.

The more in-depth review would include updated stress cash flow modeling scenarios. Updated consumption forecast are not included in the aforementioned servicer certificates. However, as part of the in-depth review, Fitch would expect to receive an updated consumption forecast from the utility. Consistent with the rating methodology for new transactions, Fitch would apply a 5.0x multiple to the absolute peak variance for each customer class and the peak net loss/chargeoffs in its cash flow model. Additionally, the incorporation of all the ‘AAAsf’ stresses detailed on pages 10–13 would also be included. The goal of this analysis is to evaluate the impact on the peak special tariff as a percentage of the residential customer bill.

A tariff in excess of 20% would not be consistent with a ‘AAAsf’ rating. In circumstances where the tariff is in excess of 20%, utilizing the 5.0x multiple on the variance and net loss/chargeoff assumptions would suggest a potential for negative rating action. As such, Fitch would incorporate lower multiples for lower rating categories in its cash flow modeling scenarios. The rating multiples applied would be 4.0x, 3.0x and 2.0x for ‘AAsf’, ‘Asf’ and ‘BBBsf’, respectively. For example, if under a 4.0x multiple on the variance and net loss/chargeoff assumptions resulted in the peak tariff falling below the 20% threshold, the transaction would be considered for a downgrade to ‘AAsf’ from ‘AAAsf’.

Counterparties to an outstanding transaction, such as servicers, trustees and derivative providers, can affect the cash flow, liquidity and performance of the transaction. Consistent with the initial review, Fitch reviews all transaction counterparties during a subsequent review to determine whether they continue to meet Fitch’s criteria. Furthermore, analysts receive notice of all rating actions taken on counterparty ratings on a daily basis, as the downgrade of a transaction counterparty below a certain threshold will trigger a subsequent review, regardless of the performance of the transaction to date. Details of Fitch’s counterparty criteria can be found in “Structured Finance and Covered Bonds Counterparty Rating Criteria.”

**Variations from Criteria**

Fitch's criteria are designed to be used in conjunction with experienced analytical judgment exercised through a committee process. The combination of transparent criteria, analytical judgment applied on a transaction-by-transaction or issuer-by-issuer basis and full disclosure via rating commentary strengthens Fitch’s rating process while assisting market participants in understanding the analysis behind our ratings.

A rating committee may adjust the application of these criteria to reflect the risks of a specific transaction or entity. Such adjustments are called variations. All variations will be disclosed in the respective rating action commentaries, including their impact on the rating where appropriate.

A variation can be approved by a ratings committee where the risk, feature or other factor relevant to the assignment of a rating and the methodology applied to it are both included within the scope of the criteria, but where the analysis described in the criteria requires modification to address factors specific to the particular transaction or entity.
Limitations

Ratings, including Rating Watches and Outlooks assigned by Fitch, are subject to the limitations specified in Fitch’s Ratings Definitions page at www.fitchratings.com.
Appendix: Additional Legal Considerations

Fitch’s analysis of the legal risks in tariff bond transactions is comparable to its analysis of other structured finance transactions. For more detail on considerations related to the analysis of structured finance transactions, see Fitch Research on “Global Structured Finance Rating Criteria.” There are also some unique aspects to the analysis of utility tariff/stranded cost/stranded cost transactions and, therefore, Fitch also considers:

- enforceability and constitutionality of the statute/order/pledge;
- the rights of and effect on bondholders upon an action seeking to impair the rights established pursuant to the statute/order and transaction documents under the U.S. Constitution and the relevant state constitution;
- the severability of the provisions of the statute/order; and
- the ability of citizens of the relevant state to seek to amend or repeal the statute/order and the likelihood of success.
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