

# Teollisuuden Voima Oyj (TVO)

## Update

### Ratings

#### Foreign Currency

Long-Term IDR	BBB
Short-Term IDR	F3
Senior unsecured	BBB

### Outlooks

Foreign-Currency Long-Term IDR Stable

### Financial Data

Teollisuuden Voima Oyj	31 Dec 12	31 Dec 11
Revenue (EURm)	352	352
Operating EBITDA (EURm)	72	102
Operating EBITDAR margin (%)	20.5	20.5
Net debt (EURm)	3,912	3,763

### Key Rating Drivers

**Rating Downgrade:** Teollisuuden Voima Oyj's (TVO) ratings were downgraded in May 2013 due to the continued delay in commissioning of its third nuclear plant unit, the 1,600 megawatt (MW) Olkiluoto 3 (OL3), and Fitch Ratings' weakened mid-term outlook for forward Nord Pool wholesale electricity prices. The delay and lower prices will erode value creation for TVO's shareholders, a key consideration for our assessment of TVO's credit profile. The delay of OL3 to 2016 is of about seven years over the original schedule.

**Not-for-Profit Nuclear Generator:** The ratings reflect TVO's position as a not-for-profit Finnish nuclear generator, producing at-cost electricity for its six shareholders. The two largest shareholders are Pohjolan Voima Oy (58.5% stake), a not-for-profit generator owned by a consortium of Finnish industrials (mainly pulp and paper) and municipalities, and Fortum Power & Heat Oy (25.8% stake), a 100% owned subsidiary of Fortum Corporation (A-/Negative).

**Higher Production Costs:** TVO's two existing nuclear units, OL1 and OL2, have highly competitive production costs (about EUR20/MWh) compared with forward Nord Pool prices of around EUR35/MWh for 2014-2018. However, TVO's production costs will increase substantially from 2017 when OL3 is operational, due to high depreciation and interest costs.

**Solid Shareholder Support:** The shareholders remain committed to OL3 even with forecast diminishing competitiveness against Nord Pool prices. A EUR300m shareholder loan has been made by TVO's shareholders in June 2013 in response to the additional delay for OL3.

**Weak Credit Ratios:** As TVO does not seek to maximise profit, Fitch considers traditional leverage or coverage ratios, which are weak, as less relevant to the ratings. In 2010-2012, TVO's funds from operations (FFO) including cash interest paid was negative and FFO interest cover was below 1x as interest expense related to OL3 debt is not covered by the shareholders in the construction phase but is capitalised under the project.

### Rating Sensitivities

**Possible Compensation Award:** A favourable outcome for TVO regarding litigation with the construction contract supplier Areva, with the award of a significant compensation for the delay, or significantly higher equity funding from TVO's shareholders would be ratings positive.

**Further Delays:** Reduced shareholder support, further OL3 delays impacting TVO's production costs, and greater litigation costs with Areva would be negative for the ratings. In addition, production costs exceeding Nord Pool prices on a sustained basis when OL3 is completed, a decline in operating performance, safety problems, significantly reduced liquidity, or its equity ratio moving close to the minimum covenanted threshold of 25% would be also negative.

**Commencement of Olkiluoto 4:** A binding commitment to the construction of the next nuclear unit, OL4 when OL3 is not fully operational, or significant debt funding of OL4 would be ratings negative.

### Liquidity and Debt Structure

**Adequate Liquidity:** TVO had Q113 available cash of EUR122m, and short-term debt of EUR216m. An undrawn revolving credit facility of EUR1.5bn (maturing in 2018) together with committed shareholder loans largely cover capex and maturing debt requirements in 2013-15.

### Related Research

[Fitch Downgrades Teollisuuden Voima Oyj to 'BBB', Outlook Stable \(May 2013\)](#)

[Large European Utilities Have Limited Rating Headroom \(March 2013\)](#)

[2013 Outlook: European Utilities \(December 2012\)](#)

[Rating EMEA Utilities \(August 2012\)](#)

### Analysts

Amee Shokur  
+44 20 3530 1617  
[amee.shokur@fitchratings.com](mailto:amee.shokur@fitchratings.com)

Arkadiusz Wicik  
+48 22 338 62 86  
[arkadiusz.wicik@fitchratings.com](mailto:arkadiusz.wicik@fitchratings.com)

Peer Group

Issuer	Country
<b>A-</b>	
Vattenfall	Sweden
Fortum Corporation	Finland
<b>BBB+</b>	
Statkraft	Norway
DONG Energy A/S	Denmark

Issuer Rating History

Date	LT IDR (FC)	Outlook/ Watch
24 May 13	BBB	Stable
1 Nov 12	BBB+	Stable
1 Jun 12	BBB+	Stable
9 Jun 11	A-	Stable
7 Jun 10	A-	Stable
28 May 09	A-	Stable
23 May 08	A-	Stable
4 May 07	A-	Stable
27 Nov 06	A-	Stable
5 Sep 06	A-	Stable

Snapshot Profile: Major Issuer-Specific Rating Factors and Trends

Rating factor	Status	Trend
Operations	Average	Neutral
Market position	Weak	Neutral
Finances	Weak	Neutral
Governance	Strong	Neutral
Geography	Average	Neutral

Source: Fitch

Immediate Peer Group – Comparative Analysis

Sector Characteristics

Operating Risks

Pure power generators are higher risk and more volatile than integrated utilities, due to their exposure to changes in fuel and electricity prices and in electricity demand (merchant and volume risk). Some business and financial risks may be mitigated through hedging strategies, long-term power purchase agreements, or by capacity and/or interconnection limitations.

Financial Risks

The financials of integrated utilities with a high share of regulated or quasi-regulated business often benefit from solid and stable cash flow generation, while those of pure merchant generators on an open market with excess capacity tend to be more volatile and risky. Negative free cash flow will remain common across the sector due to large capex plans with limited short-term flexibility. Generally, utilities have good access to capital-market funding.

Peer Group Analysis

	Vattenfall A-/Stable	Fortum A-/Negative	Statkraft BBB+/Stable	DONG BBB+/Negative	TVO BBB/Stable
EBITDA (EURm)	6,356	2,403	1,483	930	72
EBITDA margin (%)	33.3	39	34.3	10.5	20.5
Vertical integration	Medium	High	Low	Medium	None
Generation mix (%)	Hydro: 21 Nuclear: 25 Coal: 44 Renewables: 2 CCGT: 8	Hydro: 40 Nuclear: 47 Coal: 5 Renewables: 1 CCGT: 3 Other: 4	Hydro: 89 Nuclear: 0 Coal: 0 Renewables: 2 CCGT: 9 Other: 0	Hydro: 4 Nuclear: 0 Coal: 28 Renewables: 20 CCGT: 33 Other: 15	Nuclear: 95 Coal: 5

Source: Fitch, companies

Key Credit Characteristics

Large utilities with solid business profiles and good financial profiles generally command strong investment-grade ratings. Ratings depend both on business factors, including market presence, degree of vertical integration, generation mix and earnings diversification, and on financial factors such as financial policy, profit margins, capex plans and approach to M&A activity.

Overview of Companies

**Vattenfall AB (A-/Stable)** – the Stable Outlook reflects Fitch's view that despite a substantial capex programme, the negative cost effects of the full auction of carbon dioxide emissions in 2013, and a challenging operating market environment, Vattenfall's credit profile should remain stable, with for example, FFO net leverage remaining at around 3.6x in 2013-16.

**Fortum Corporation (A-/Negative)** – the Negative Outlook reflects downward pressure on Fortum's ratings from low electricity prices in the Nordic region over the medium term, driven by weak supply and demand dynamics, a period of high capital expenditure with corresponding earnings only feeding through with a time lag and a high dividend payout policy.

**Statkraft AS (BBB+/Stable)** – the rating reflects a one-notch uplift for Norwegian state support, the group's strong business profile in the Nordic region, as well as increasing diversification through heavy investments into hydropower in emerging markets and wind power mostly in Europe. Fitch forecasts FFO net adjusted leverage of above 4x in the medium term.

**Dong Energy A/S (BBB+/Negative)** – The Negative Outlook is due to stretched forecast leverage ratios for the 'BBB+' rating level in 2013-14. The company faces a challenging operating environment, as well as high capex. A potential Outlook stabilisation depends on the progress of the company's 2013-14 financial action plan.

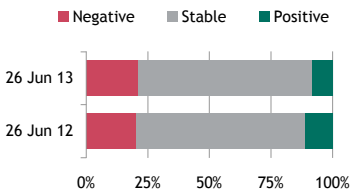
Related Criteria

Corporate Rating Methodology (August 2013)

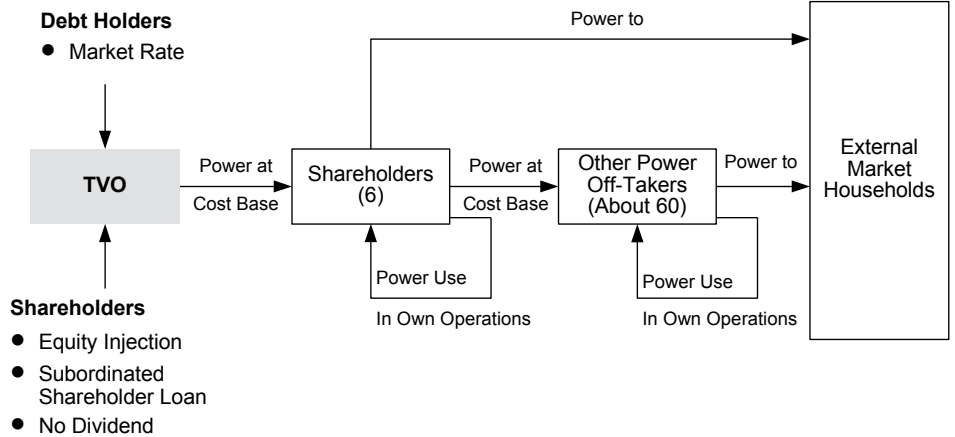
### Distribution of Sector Outlooks

Directional Outlooks and Rating

Watches



### TVO's Operating Principle "Mankala" (At Cost Electricity for Shareholders)



Source: TVO

### Debt Maturities and Liquidity at 31 Mar 13

Debt maturities	(EURm)
2013	215
2014	47
2015	305
2016	856
After 2017	1,621
<b>Cash and equivalents</b>	122
<b>Undrawn committed facilities</b>	
EUR 1.5bn RCF due 2018	1,500

Source: Fitch

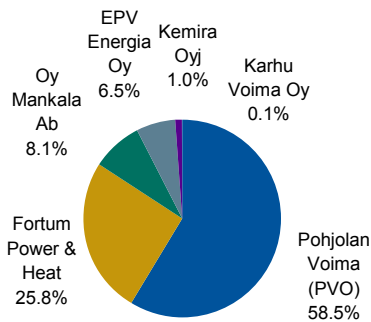
### TVO Power Plants

Power plant (fuel)	Capacity (MW)	Commercial operation
Olkiluoto 1 (nuclear)	880	1979
Olkiluoto 2 (nuclear)	880	1982
Olkiluoto 3 (nuclear)	1,600	2017
Meri Pori (coal)	257 <sup>a</sup>	1994

<sup>a</sup> 257MW stake in 565MW coal condensing plant, representing TVO's 45% stake (the other 55% is owned by Fortum Power & Heat Oy, which operates the plant)

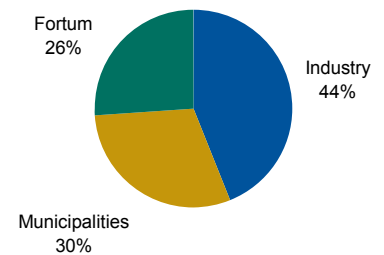
Source: TVO, Fitch

### TVO Shareholders



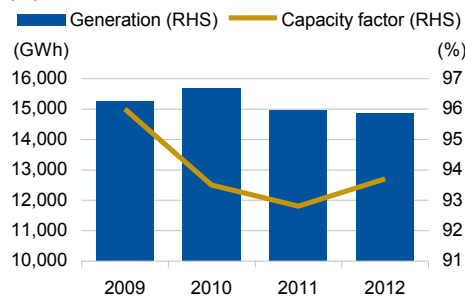
Source: TVO

### Underlying Shareholders by Sector



Source: TVO

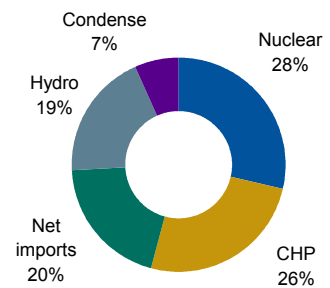
### Electricity Generation (GWh) and Capacity (%)



Source: TVO

### Finnish Electricity Supply

2012



Source: TVO

**Teollisuuden Voima Oyj(TVO)**  
**FINANCIAL SUMMARY**

	31 Dec 2012 EURm Year End	31 Dec 2011 EURm Year End	31 Dec 2010 EURm Year End	31 Dec 2009 EURm Year End	31 Dec 2008 EURm Year End
<b>Profitability</b>					
Revenue	352	352	363	305	257
Revenue Growth (%)	(0.06)	(2.81)	18.73	18.69	10.76
Operating EBIT	16	44	158	4	(29)
Operating EBITDA	72	102	215	58	23
Operating EBITDA Margin (%)	20.44	28.89	59.29	18.96	8.86
FFO Return on Adjusted Capital (%)	1.56	1.77	1.71	2.55	1.19
Free Cash Flow Margin (%)	(69.14)	(83.91)	(70.11)	(257.79)	(221.84)
<b>Coverages (x)</b>					
FFO Gross Interest Coverage	0.37	0.54	0.39	0.53	0.15
Operating EBITDA/Gross Interest Expense	0.42	0.71	1.47	0.46	0.20
FFO Fixed Charge Coverage (inc. Rents)	0.37	0.54	0.39	0.53	0.15
FCF Debt-Service Coverage	(0.15)	(0.20)	(0.31)	(1.01)	(0.85)
Cash Flow from Operations/Capital Expenditures	(0.48)	(0.45)	(0.33)	(0.11)	(0.11)
<b>Debt Leverage of Cash Flow (x)</b>					
Total Debt with Equity Credit/Operating EBITDA	56.22	38.00	16.76	58.60	118.47
Total Debt Less Unrestricted Cash/Operating EBITDA	54.34	36.97	16.30	56.62	109.58
<b>Debt Leverage Including Rentals (x)</b>					
Annual hire lease rent costs for long-term assets (reported and/or estimate)	0	0	0	0	0
Gross Lease Adjusted Debt/Operating EBITDAR	56.02	37.92	16.74	58.43	117.51
Gross Lease Adjusted Debt /FFO+Int+Rentals	60.01	50.34	59.39	47.81	186.39
FCF/Lease Adjusted Debt (%)	(6.01)	(7.64)	(7.05)	(23.19)	(21.12)
<b>Debt Leverage Including Leases and Pension Adjustment (x)</b>					
Pension and Lease Adjusted Debt /EBITDAR + Pension Cost	56.02	37.92	16.74	58.43	117.51
<b>Liquidity</b>					
(Free Cash Flow+Available Cash+Committed Facils)/(ST Debt + Interest) (%)	403.43	191.07	523.69	178.68	220.32
<b>Balance Sheet Summary</b>					
Cash and Equivalents (Unrestricted)	136	106	98	115	203
Restricted Cash and Equivalents	n.a.	n.a.	n.a.	n.a.	n.a.
Short-Term Debt	207	617	170	517	460
Long-Term Senior Debt	3,841	3,072	3,253	2,697	2,061
Subordinated debt	n.a.	179	179	179	179
Equity Credit	n.a.	n.a.	n.a.	n.a.	n.a.
Total Debt with Equity Credit	4,048	3,869	3,602	3,393	2,701
Off-Balance-Sheet Debt	2	2	2	2	2
Lease-Adjusted Debt	4,050	3,871	3,605	3,395	2,703
Fitch- identified Pension Deficit	n.a.	n.a.	n.a.	n.a.	n.a.
Pension Adjusted Debt	4,050	3,871	3,605	3,395	2,703
<b>Cash Flow Summary</b>					
Operating EBITDA	72	102	215	58	23
Gross Cash Interest Expense	(184)	(143)	(154)	(133)	(98)
Cash Tax	0	0	0	0	0
Associate Dividends	1	1	1	1	1
Other Items before FFO (incl. interest receivable)	10	(15)	(137)	50	18
<b>Funds from Operations</b>	<b>(101)</b>	<b>(56)</b>	<b>(75)</b>	<b>(25)</b>	<b>(56)</b>
Change in Working Capital	23	(36)	13	(51)	(0)
<b>Cash Flow from Operations</b>	<b>(78)</b>	<b>(92)</b>	<b>(62)</b>	<b>(75)</b>	<b>(56)</b>
Total Non-Operating/Non-Recurring Cash Flow	n.a.	0	n.a.	n.a.	n.a.
Capital Expenditures	(161)	(204)	(192)	(712)	(515)
Dividends Paid	(4)	n.a.	n.a.	n.a.	n.a.
<b>Free Cash Flow</b>	<b>(244)</b>	<b>(296)</b>	<b>(254)</b>	<b>(787)</b>	<b>(571)</b>
Net (Acquisitions)/Divestitures	0	(0)	(0)	(0)	(1)
Net Equity Proceeds/(Buyback)	n.a.	65	79	100	96
Other Cash Flow Items	94	(28)	(51)	(92)	(736)
Total Change in Net Debt	(149)	(259)	(226)	(780)	(1,212)
<b>Working Capital</b>					
Accounts Receivable Days	38	54	51	61	61
Inventory Days	1,292	617	2,286	507	472
Accounts Payable Days	55	33	183	47	34

Figure 1

**Reconciliation of Key Financial Metrics for TVO**

(EURm)	31 Dec 12	31 Dec 11
Total debt <sup>a</sup>	4,048	3,869
- Equity credit	0	0
= Total debt with equity credit	4,048	3,869
+ Total off-balance sheet debt (8 x long-term leases)	2	2
<b>= Total lease-adjusted debt (a)</b>	<b>4,050</b>	<b>3,871</b>
- Cash and equivalents (unrestricted)	136	106
<b>= Net lease-adjusted debt (b)</b>	<b>3,915</b>	<b>3,766</b>
Cash flows from operating activities (as reported)	69	25
+ Reversal finance charge	21	15
- Dividend received (recurring)	1	1
+ Reversal taxation paid	0	0
<b>= Net cash from operating activities (adjusted by Fitch)</b>	<b>89</b>	<b>40</b>
- Net finance charges <sup>b</sup> (c)	168	132
- Taxation paid	0	0
+ Dividend received (recurring)	1	1
= Cash flow from operations	-78	-92
- Change in working capital	23	-36
<b>= Funds from operations (FFO) (d)</b>	<b>-101</b>	<b>-56</b>
Gross interest paid <sup>b</sup> (e)	184	143
Long-term (LT) leases (f)	0.3	0.3
<b>FFO adjusted net leverage (x)</b>		
Net lease-adjusted debt/(FFO + net finance charge + LT leases) (b/(d+c+f))	58.0	49.0
<b>FFO fixed charge cover (x)</b>		
(FFO + net finance charge + LT leases)/(gross interest paid + LT leases) ((d+c+f)/(e+f))	0.4	0.5
<b>FFO gross interest coverage (x)</b>		
(FFO + net finance charge)/gross interest ((d+c)/e)	0.4	0.5

<sup>a</sup> Including loan from the Finnish State Nuclear Waste Management Fund

<sup>b</sup> Including capitalised interest

Source: Fitch based on company reports

The ratings above were solicited by, or on behalf of, the issuer, and therefore, Fitch has been compensated for the provision of the ratings.

ALL FITCH CREDIT RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS AND DISCLAIMERS BY FOLLOWING THIS LINK: [HTTP://FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS](http://FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS). IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ARE AVAILABLE ON THE AGENCY'S PUBLIC WEB SITE AT [WWW.FITCHRATINGS.COM](http://WWW.FITCHRATINGS.COM). PUBLISHED RATINGS, CRITERIA, AND METHODOLOGIES ARE AVAILABLE FROM THIS SITE AT ALL TIMES. FITCH'S CODE OF CONDUCT, CONFIDENTIALITY, CONFLICTS OF INTEREST, AFFILIATE FIREWALL, COMPLIANCE, AND OTHER RELEVANT POLICIES AND PROCEDURES ARE ALSO AVAILABLE FROM THE CODE OF CONDUCT SECTION OF THIS SITE. FITCH MAY HAVE PROVIDED ANOTHER PERMISSIBLE SERVICE TO THE RATED ENTITY OR ITS RELATED THIRD PARTIES. DETAILS OF THIS SERVICE FOR RATINGS FOR WHICH THE LEAD ANALYST IS BASED IN AN EU-REGISTERED ENTITY CAN BE FOUND ON THE ENTITY SUMMARY PAGE FOR THIS ISSUER ON THE FITCH WEBSITE.

Copyright © 2013 by Fitch, Inc., Fitch Ratings Ltd. and its subsidiaries. One State Street Plaza, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings, Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion is based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at anytime for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US\$1,000 to US\$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US\$10,000 to US\$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.