



FEDERALLY MANDATED CONGESTION CHARGES

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For the average residential Eversource customer (using 700 kwh per month), the FMCC is approximately 2% of the bill.

Residential electricity customers pay FMCCs in both the distribution and generation portions of their bills.

As of January 1, 2015, the customer's bill would total \$154.82, which includes:

- \$3.05 FMCC as a component of the distribution charge and
- \$0.21 FMCC embedded within the generation services charge.

ISSUE

This report describes the federally mandated congestion charges (FMCC) component of electricity bills. It also explains how funds collected through this charge are spent.

SUMMARY

By law, FMCCs are collected on electricity bills to cover certain costs approved by the Federal Energy Regulatory Commission (FERC) and various costs approved by the Public Utility Regulatory Authority (PURA) ([CGS § 16-1\(35\)](#)). PURA reviews such charges to ensure that the electric companies recover no more (or less) than their costs. This report describes many of the components of FMCCs and the proportion of funds allocated to each component based on the publicly available information in the electric companies' filings in the most recent PURA docket (PURA dockets [15-03-01](#) and [15-03-02](#)) currently under review. PURA plans to issue a decision on the rate reconciliation in September 2015.

Certain FMCCs are considered "nonbypassable", meaning that customers must pay them regardless of whether they choose a retail energy supplier. These FMCCs are characterized as "reliability related." Components of this charge pay for a variety of expenses including electric companies' contracts for certain generation or other energy resources, measures required by [PA 05-01](#), and various Independent System Operator (ISO)-New England charges. According to the filings, for 2014, Eversource reported approximately \$121.9 million in nonbypassable FMCC costs and UI reported \$17.6 million.

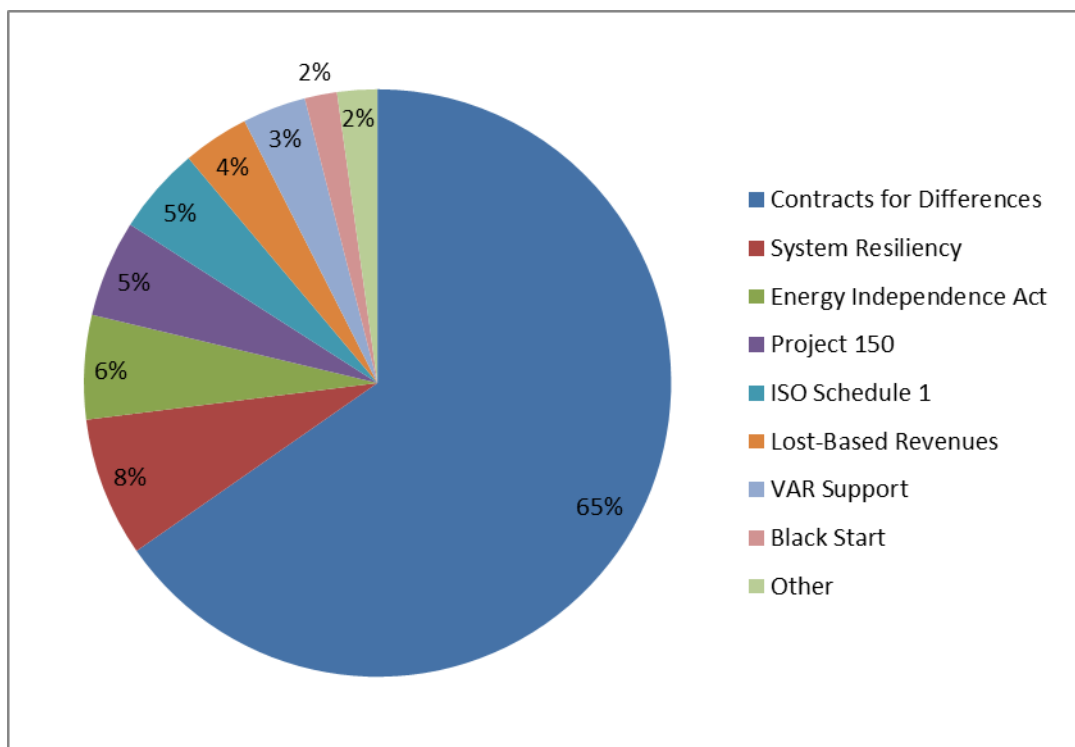
“Bypassable” FMCCs are charges that customers may avoid by selecting a retail energy supplier rather than receiving service through the electric companies’ standard service rates. They are characterized as “energy-related” and include ISO-related costs, costs related to congestion on the transmission system, and certain financial instruments meant to offset those costs.

NONBYPASSABLE FMCC

Nonbypassable FMCCs capture costs that cannot be avoided if a customer chooses a retail electric supplier. These costs are sometimes characterized as “reliability related”. Nonbypassable FMCCs also include costs associated with renewable energy incentives and other initiatives required by state law. Figures 1 and 2 show nonbypassable FMCC costs as submitted to PURA by each company for 2014, excluding some components that offset costs, which we describe below. In total, Eversource reported \$121.9 million in nonbypassable FMCC costs for 2014, while United Illuminating (UI) reported \$17.6 million.

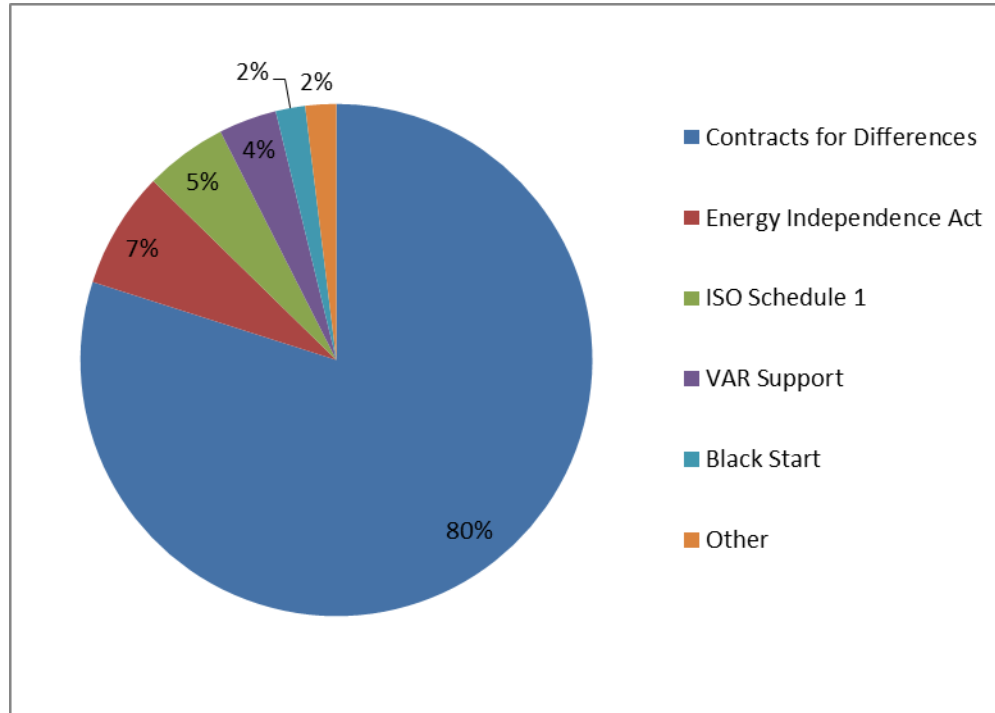
Below these figures, we describe each of the FMCC components in more detail.

Figure 1: Eversource Nonbypassable FMCC Expenses (2014)



Source: [PURA Docket No. 15-03-01](#), Corres. 03/31/2015, FMCC-Exhibit A, p. 17

Figure 2: UI's Nonbypassable FMCC Expenses (2014)



Source: [PURA Docket No. 15-03-02](#), Corres. 03/31/2015, Exhibit 1A to 3J, Exh 3-B

Contracts for Differences

[PA 05-01](#) required, among other things, the Department of Public Utility Control (DPUC, PURA's predecessor) to identify measures to reduce costs associated with congestion on the electric transmission system, including contracts between an electric company and power plant owners for the rights to a plant's capacity.

[PA 07-242](#) required the electric companies to submit a plan to DPUC to build peaking generation plants (i.e., generally, plants that run only when demand is high). It required DPUC to review the plans in a contested case and approve them if it found the plans to be in customers' best interests ([CGS § 16-243u](#)).

Pursuant to both acts, the electric companies maintain contracts with certain generators or other resources and recover costs associated with the contracts through the FMCC. In a contract for difference, a generator or other resource is given a specified price for its power. It then sells power on the regional wholesale energy market. The electric company compensates the generator for the difference between the price it received in the market and the price quoted in the contract (unless the market price is higher than the contract price, in which case the generator compensates the electric company). For 2014, Eversource reported approximately \$97.3 million in costs related to contracts for differences and UI reported \$26.4 million

(UI appears to include in this component approximately \$2 million in costs related to Project 150. Eversource categorizes these costs separately.)

System Resiliency

In the [settlement agreement](#) for the 2012 merger of Northeast Utilities and NSTAR, PURA ordered Connecticut Light and Power (CL&P, now known as Eversource) to submit a multi-year plan and cost recovery method for distribution system resiliency. PURA allowed CL&P to recover its costs related to this program through the systems benefits charge, the FMCC, or a similar mechanism. For 2014, Eversource reported approximately \$11.4 million in costs related to system resiliency.

Energy Independence Act Costs

[Public Act 05-01](#) expanded the definition of FMCC to include the costs of certain other measures approved by PURA or its predecessor. Among other things, it required PURA to establish a program to grant one-time awards to electric company customers to fund capital costs of customer-side distributed resources (e.g., fuel cells or solar panels). Under the act, the subsidies are only granted if the project reduces FMCCs more than the award. It also required PURA to establish a program to provide awards to the electric companies for educating, assisting, and promoting investments in these resources.

It required electric companies to institute programs to provide rebates to customers with natural gas customer-side distributed-resources projects for the customer's gas delivery charges from their local gas company.

In 2014, Eversource spent approximately \$8.5 million on Energy Independence Act costs, the bulk of which (\$7.6 million) went towards distributed generation measures. UI spent \$2.4 million, most of which (\$2.3 million) went towards natural gas rebates.

Project 150

The law required the electric companies to enter into minimum 10-year contracts for at least 150 megawatts of class I renewable power by July 1, 2008 ([CGS § 16-244c\(h\)\(2\)](#)), a program commonly referred to as Project 150. With certain exceptions, the law prohibits PURA from extending Project 150 contracts beyond their previously approved termination dates. For 2014, Eversource reported approximately \$7.9 million in costs related to Project 150.

ISO Schedule 1

ISO-New England operates the regional bulk power generation and transmission system. UI and Eversource pay ISO-New England for various services related to

transmission and the wholesale energy market. In other New England states, electric companies similarly pay for the services ISO-New England provides and pass on the costs through a charge to their customers.

ISO Schedule 1 describes ISO-New England's scheduling, system control, and dispatch services that allow the movement of power through, out of, within or into the New England Control Area. Under ISO Schedule 1, ISO New England provides scheduling system control and dispatch service to transmission customers purchasing regional network service. More information about this charge and other ISO-New England charges is available on [ISO-New England's website](#).

ISO Schedule 1 charges are calculated based on rates approved annually by FERC. Eversource reported approximately \$7.2 million in costs for ISO Schedule 1 for 2014, and UI reported \$1.7 million.

Lost-Based Revenues

In the past, when sales volume decreased due to successful energy efficiency programs, CL&P recovered its losses through the FMCC as lost-based revenues (LBR). According to [Eversource's 2014 annual report](#), under a PURA-approved mechanism, the company's distribution revenues are now decoupled from (i.e., no longer dependent on) customer sales volumes. As of December 1, 2014, Eversource no longer recognizes LBR. In 2014, Eversource reported approximately \$5.4 million in LBR costs.

VAR Support

Voltage-Ampere Reactive (VAR) Support is a service provided by ISO-New England to maintain system voltage. The transmission lines carry both real and reactive power. Transformers and transmission lines require reactive power, measured in VARs, to move power through the lines. For electricity to flow continuously, the voltage on the transmission system must be maintained within an acceptable range.

VAR support service is invoiced monthly by ISO-New England. For 2014, Eversource reported \$5.2 million in VAR support costs, while UI reported \$1.2 million.

Black Start

ISO-New England designates specific power plants that are interconnected to the transmission or distribution systems to provide "black start" service, which means that in the event of a system-wide blackout, ISO-New England can call upon these plants to start without an outside electrical supply.

Black Start charges are allocated proportionally based on the regional network load of any transmission customer that purchases regional network service. Black Start service is invoiced monthly by ISO-New England. For 2014, Eversource reported approximately \$2.6 million in black start costs, while UI reported \$615,163.

Other Charges

Both companies reported various other costs totaling less than 3% of its nonbypassable FMCCs. These included costs related to:

1. ISO Schedule 2, which recovers ISO-New England's costs for operating the energy market, generation dispatch, and energy accounting;
2. ISO Schedule 5, collected by ISO-New England to cover the operating expenses of the [New England State Committee on Electricity](#);
3. renewable energy credit programs;
4. consulting costs, including costs for the state's integrated resource plan; and
5. projects authorized in [PA 11-80](#), § 127, which allowed electric companies, as well as owners or developers of generation projects that do not pollute, to submit proposals to the Department of Energy and Environmental Protection (DEEP) to build, own, or operate up to 30 megawatts of generation capacity using class I renewable energy sources (e.g., wind power, solar power, or fuel cells).

Within this 3% of total FMCC costs, UI also reported costs related to:

1. [PA 13-303](#), which allowed the DEEP commissioner to (a) solicit proposals from Class I and large-scale hydropower generators and (b) direct the electric companies to enter into agreements with them;
2. UI's share of Connecticut Yankee operating expenses; and
3. miscellaneous costs.

Components that Offset Expenses

Certain components included in nonbypassable FMCCs offset FMCC expenses. In 2014, Eversource's FMCC expenses were offset by approximately \$27 million in alternative compliance payments, which are payments that wholesale energy suppliers must make to the electric companies when the suppliers fail to comply with renewable portfolio standards ([CGS § 16-244c\(h\)\(1\)](#)). UI's costs were offset by approximately \$15.4 million, which included funds from alternative compliance payments, sales of renewable energy credits, and a settlement between Connecticut Yankee and the U.S. Department of Energy.

BYPASSABLE FMCC

The electric companies have contracts with generators to provide standard service for those customers who do not choose electric suppliers. Bypassable FMCCs are charges that customers may avoid through their choice of a retail energy supplier. They include ISO-related costs, costs related to congestion on the transmission system, and certain financial instruments meant to offset congestion-related costs.

Both companies reported low expenses for bypassable FMCCs in 2014.

Locational Marginal Price Differential

The value and price of wholesale electric energy varies by location, based on certain factors such as the transmission system's physical limitations. UI reimburses certain suppliers for the difference between the locational marginal price at the ISO-New England internal hub and the Connecticut load zone each hour. The internal hub represents an uncongested price for electric energy, based on a collection of locations throughout New England. The Connecticut load zone is an aggregation of prices at different locations on the bulk power grid throughout the state.

Financial Transmission Rights

Both companies include expenses associated with financial transmission rights (FTR) in their calculations of congestion mitigation costs. FTRs are financial instruments, bought and sold in auctions administered by ISO-New England, that may be purchased to hedge against (i.e., offset) congestion costs. FTRs allow the electric companies to manage the risk associated with congestion, which can be unpredictable. The companies may earn or spend money as a result of buying and selling FTRs in the ISO-New England market (i.e., FTR auction revenue) or by holding FTRs (i.e., FTR market revenue).

Auction Revenue Rights

UI also includes auction revenue rights (ARR) in its congestion mitigation costs. An ARR is a right to receive revenues from the FTR auctions administered by ISO-New England. UI receives ARR revenue through its contracts with certain suppliers.

Generation Information System (GIS) Administration Costs

Eversource includes GIS costs as bypassable FMCCs. GIS is an emissions reporting and tracking tool that monitors environmental attributes of generated electricity. Electricity suppliers use this information to (1) differentiate their products for customers, (2) provide required information on energy disclosure labels, and (3) comply with state and regional renewable portfolio standards. ISO-New England and their vendor administer GIS and bill the electric companies for associated costs.

HYPERLINKS

PURA Docket No. 15-03-01, *PURA Annual Review of the Rate Adjustment Mechanisms of the Connecticut Light & Power Company*,
[http://www.dpuc.state.ct.us/dockcurr.nsf/\(Web+Main+View/All+Dockets\)?OpenView&StartKey=15-03-01](http://www.dpuc.state.ct.us/dockcurr.nsf/(Web+Main+View/All+Dockets)?OpenView&StartKey=15-03-01), last visited April 29, 2015.

PURA Docket No. 15-03-02, *PURA Annual Review of the Rate Adjustment Mechanism of the United Illuminating Company*,
[http://www.dpuc.state.ct.us/dockcurr.nsf/\(Web+Main+View/All+Dockets\)?OpenView&StartKey=15-03-02](http://www.dpuc.state.ct.us/dockcurr.nsf/(Web+Main+View/All+Dockets)?OpenView&StartKey=15-03-02), last visited April 29, 2015.

Connecticut Light and Power, http://www.cl-p.com/Rates/AverageBill/Average_Bill/, last visited April 29, 2015.

PURA Docket No. 12-01-07, *Settlement Agreement in the Application for Approval of Holding Company Transaction Involving Northeast Utilities and NSTAR*,
http://www.ct.gov/ag/lib/ag/press_releases/2012/20120313_nstar_settlementagreement.pdf, last visited April 29, 2015.

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Eversource Energy, *2014 Annual Report*,
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New England States Committee on Electricity, <http://www.nescoe.com/>, last visited April 29, 2015.

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