MIS Portal "Paper Prototype"

ERCOT MIS Portal Project – Prototype 1

Version 2.0

February 20, 2007

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About This Document:

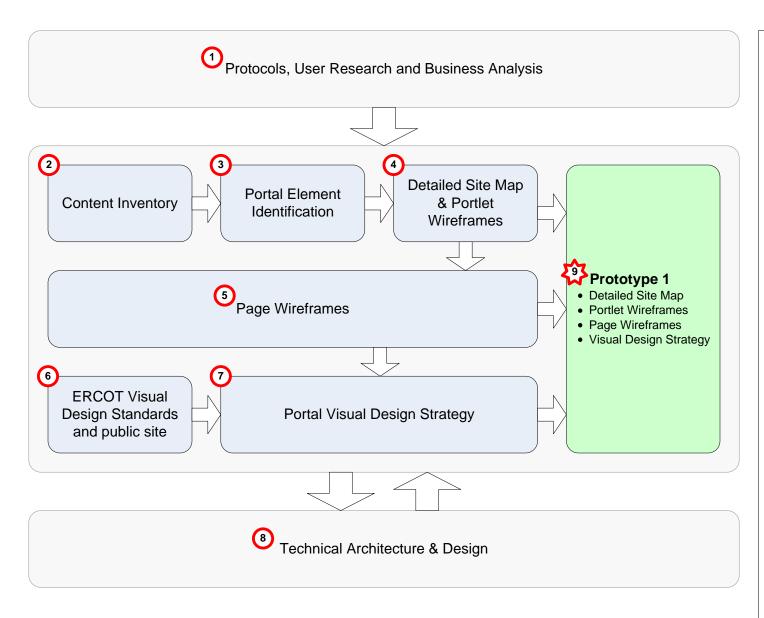
This document is intended to:

- Represent the MIS Portal navigation structure and page layouts
- Demonstrate various ways that Users may navigate through the MIS Portal and interact with content
- Provide example step-through scenarios about navigation and simple portal interface manipulation
- Specify the kinds and functionality of buttons that are associated with the Portal's "Portlets"
- Show the team-approved Visual Design Strategy that will be applied to the MIS Portal

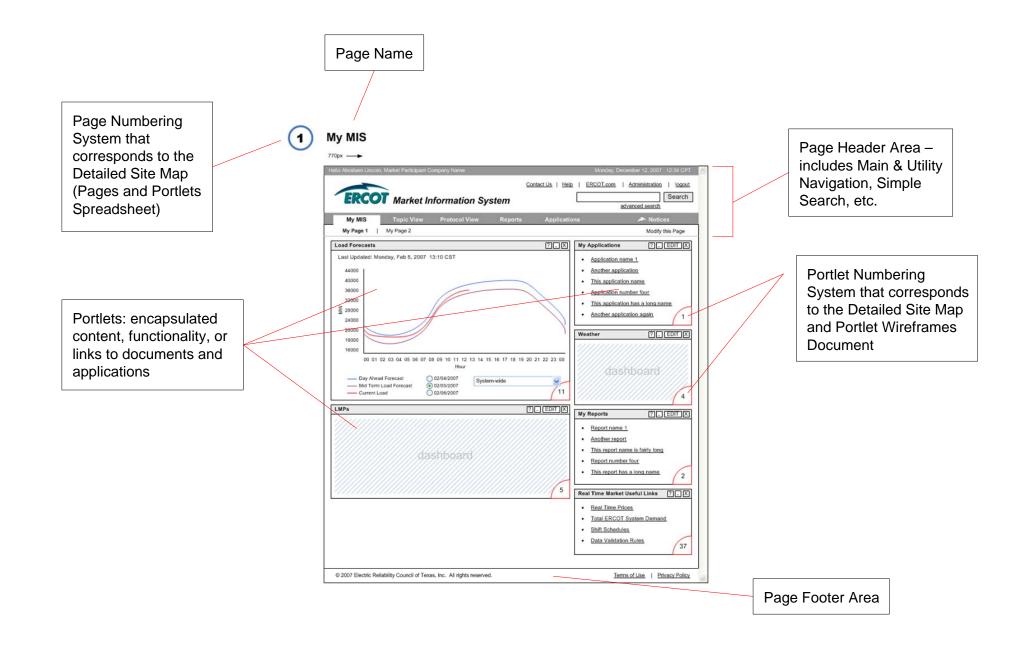
This document is based upon numerous other ERCOT and MIS Project artifacts and work efforts, and reflects the current status of each; many of which are still in development. These include (with general status if appropriate):

- ERCOT Nodal Protocols
- ERCOT "Visual Design Guidelines for Web Applications"
- MIS Portal Business Analysis effort Ongoing
- MIS Portal Content Inventory Incomplete
- MIS Portal Detailed Site Map and "Pages and Portlets" Spreadsheet Incomplete, depends upon Content Inventory
- MIS Portal Technical Architecture and Design effort Ongoing

The following diagram represents the artifacts and efforts that impacted or comprise Prototype 1



- 1) Primary feeds into the entire scope of development.
 - Protocols: what is mandated
 - User Research: what people want
 - Business Analysis: how ERCOT responds (e.g. Use Cases, etc.)
- 2 Content Inventory: Content, data and other requirements identified by extraction from Protocols
- 3 Portal Element Identification: Items to be displayed on the Portal based upon the Content Inventory (pages, portlets, links, etc.)
- 4 Detailed Site Map & Portlet
 Wireframes: Presentation context
 applied to the Portal Elements, the
 structure of the Portal determined and
 Portlets designed
- 5 Page Wireframes: Mock-ups of the Portal Graphic User Interface that demonstrate layout and navigation strategy, relying upon Detailed Site Map & Portlet Wireframes
- 6 ERCOT Visual Design Standards & public site: Existing influences that guide the Visual Design Strategy of the Portal
- 7 Portal Visual Design Strategy: The graphic look and feel of the Portal: color scheme, graphic elements, typography styles, etc.
- 8 Technical Architecture & Design:
 Prior and ongoing technology
 considerations influences and is
 influenced by User Experience
 Development
- Prototype 1: The current state of our knowledge and design of the MIS Portal, collected in various document deliverables.



About Page Wireframes:

The page wireframes in this document are still in design phase, and do not represent every page of the MIS Portal. They represent our current knowledge about what the page should show (by way of navigation and portlets) but may not represent any presentation priorities placed upon the content within. As such, the position of portlets within the pages may change, and the specific portlets shown may change.

About Portlets:

All portlets depicted reflect our current knowledge about:

- 1) what they are (their topic)
- 2) what they are called, and
- 3) what they present.

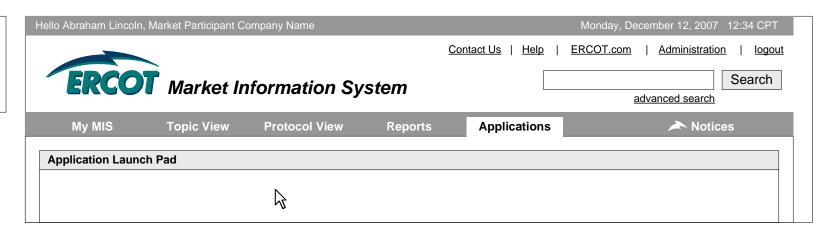
The portlets are still in design phase and will change as the project progresses. Assumptions have been made for presentation purposes about how content and functionality within the portlets may be presented. The portlets depicted may show "dummy" content or none at all, as deemed appropriate at our current state of development.

The final design and specification of portlets depend upon:

- 1) a finished Content Inventory
- 2) technology (back-end and front-end) capable of displaying such content or functionality
- 3) the overall scope of the MIS Portal (e.g. "wish list" items that may or may not be developed)

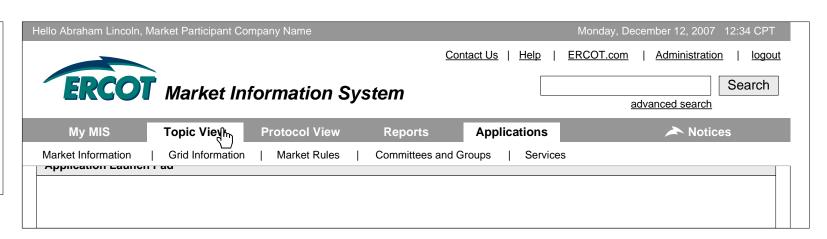
Navigation Method – Demonstration of Main Menu functionality

The User is currently on the "Applications" page.



The User moves the mouse pointer over "Topic View".

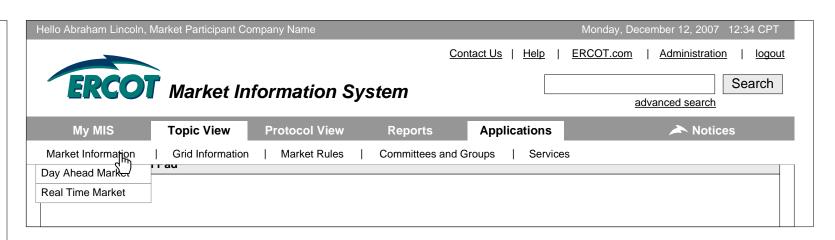
A horizontal fly-out menu appears below "Topic View"



The User moves the mouse pointer over "Market Information".

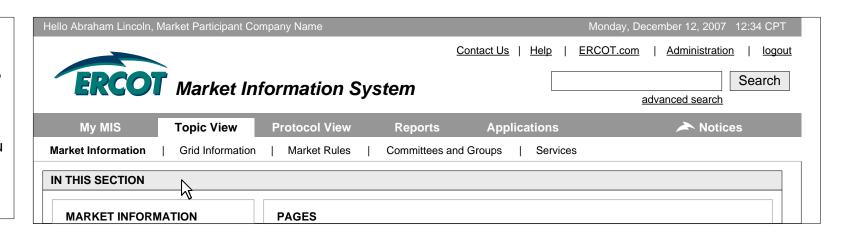
A fly-out menu appears below "Market Information"

The User clicks "Market Information"



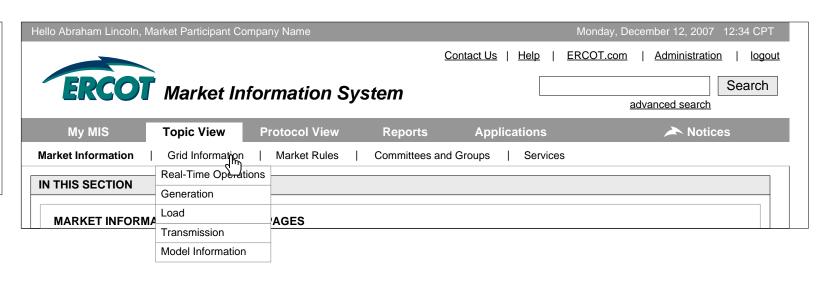
The User has arrived at the "Market Information" page.

The horizontal menu now persists throughout this section.



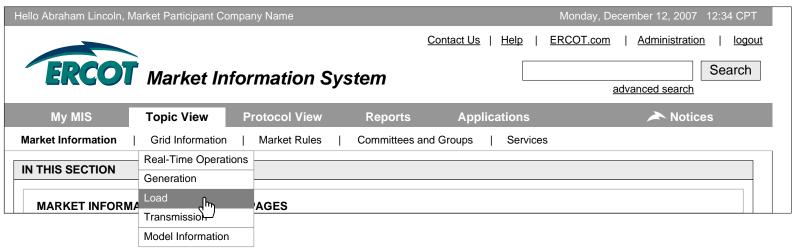
The User moves the mouse pointer over "Grid Information".

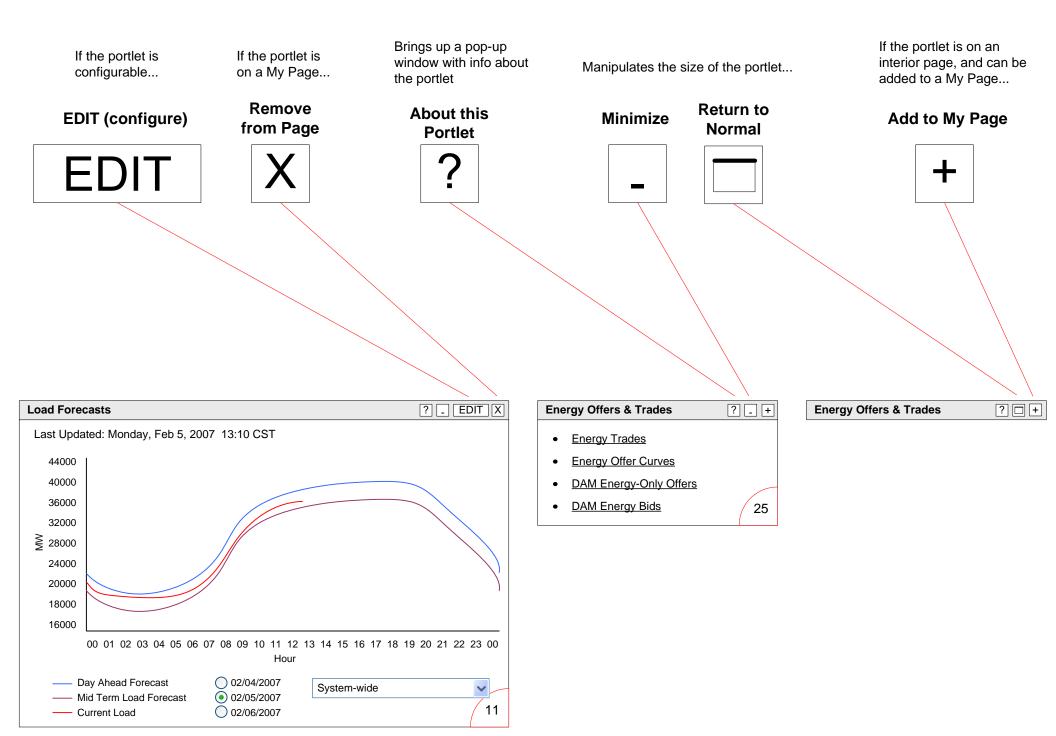
A fly-out menu appears below "Grid Information"

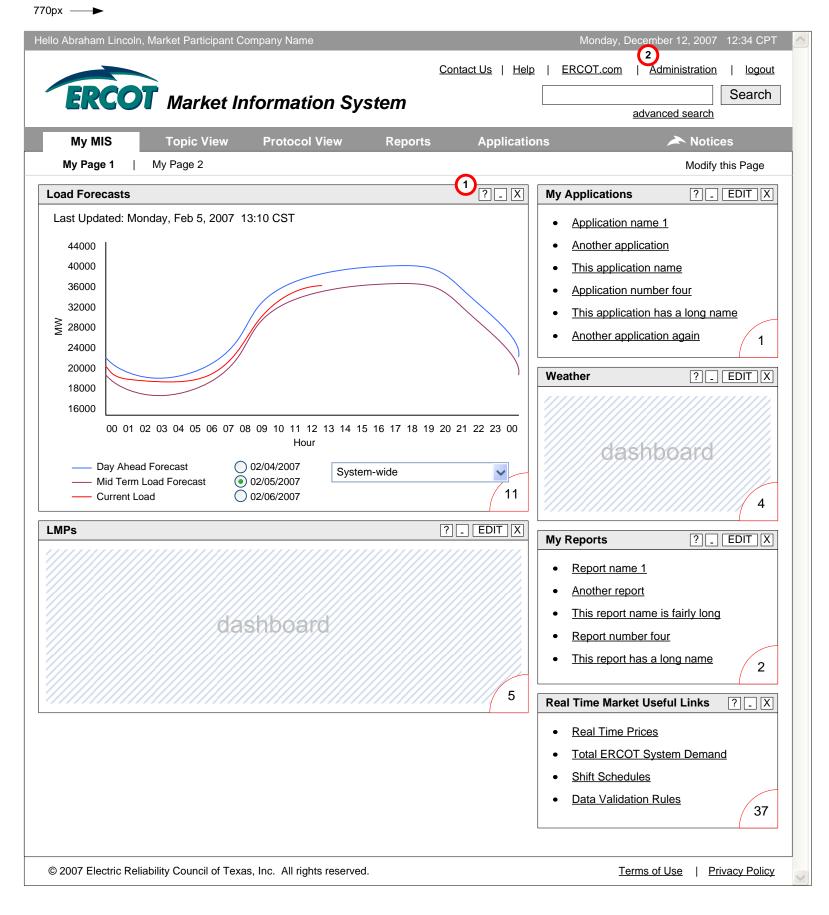


The User moves the mouse pointer down to "Load".

The User may click this to navigate to the "Load" page.







About this page:

- Unlike the rest of the wireframes in this document, this My MIS page shows an example rather than a complete set of portlets. All other pages show all the portlets currently assigned to that page.
- 1 Portlets on this page can be manipulated in various ways by portlet header buttons.
- 2 The utility navigation link "administration" is only available to Portal Administrators

These wireframes are designed to approximate the actual amount of screen real estate used by various page elements. It is a good indication of how much content can fit within a 770px window.

Wireframes for ERCOT MIS Portal, v2.0	Client: ERCOT	Project: MIS Portal	Client Approval:
MIS_Paper_Prototype_1_2.0.pdf	Enterpulse – Dallas 15303 Dallas Parkway, Ste. 1350 – Addison, Texas 75001 972.581.7000 office – 972.581.7002 fax		•
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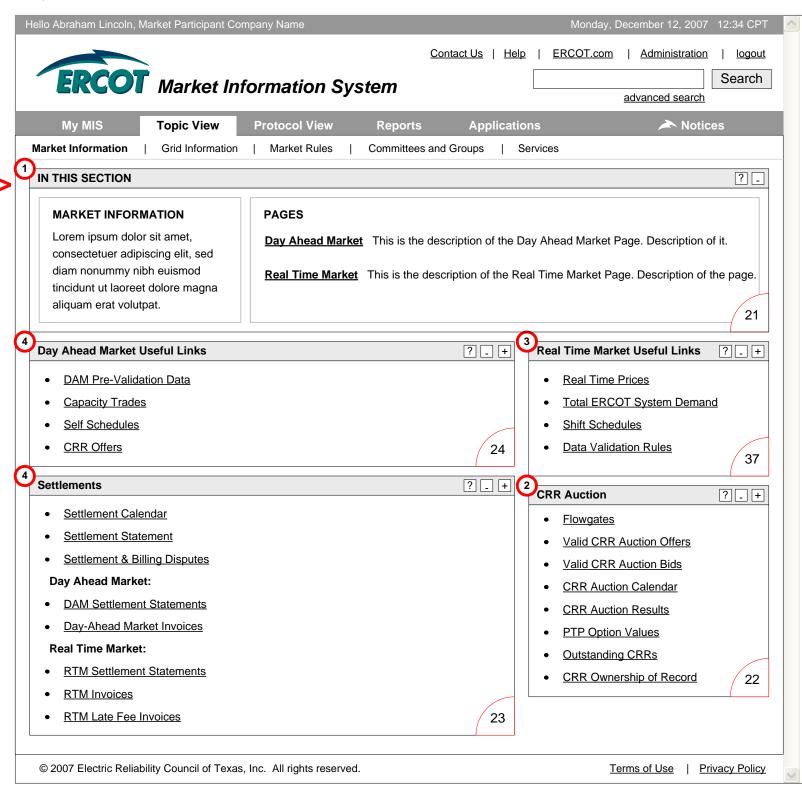


Indicates content and

functionality available in this section

Market Information

770px —**▶**



About this page:

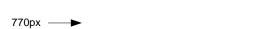
- Intent:
 - 1 Introduce the Section the "IN THIS SECTION" portlet shows the sub-pages beneath and example topics available on those pages
 - Offer "orphaned" portlets that don't fit neatly within a section page (e.g. "CRR Auction")
 - Offer sub-page portlets that are broad enough to not give this page a feeling of redundancy (e.g. "Useful Links" portlets)
- Shows a "narrow" portlet put in a "wide" pane

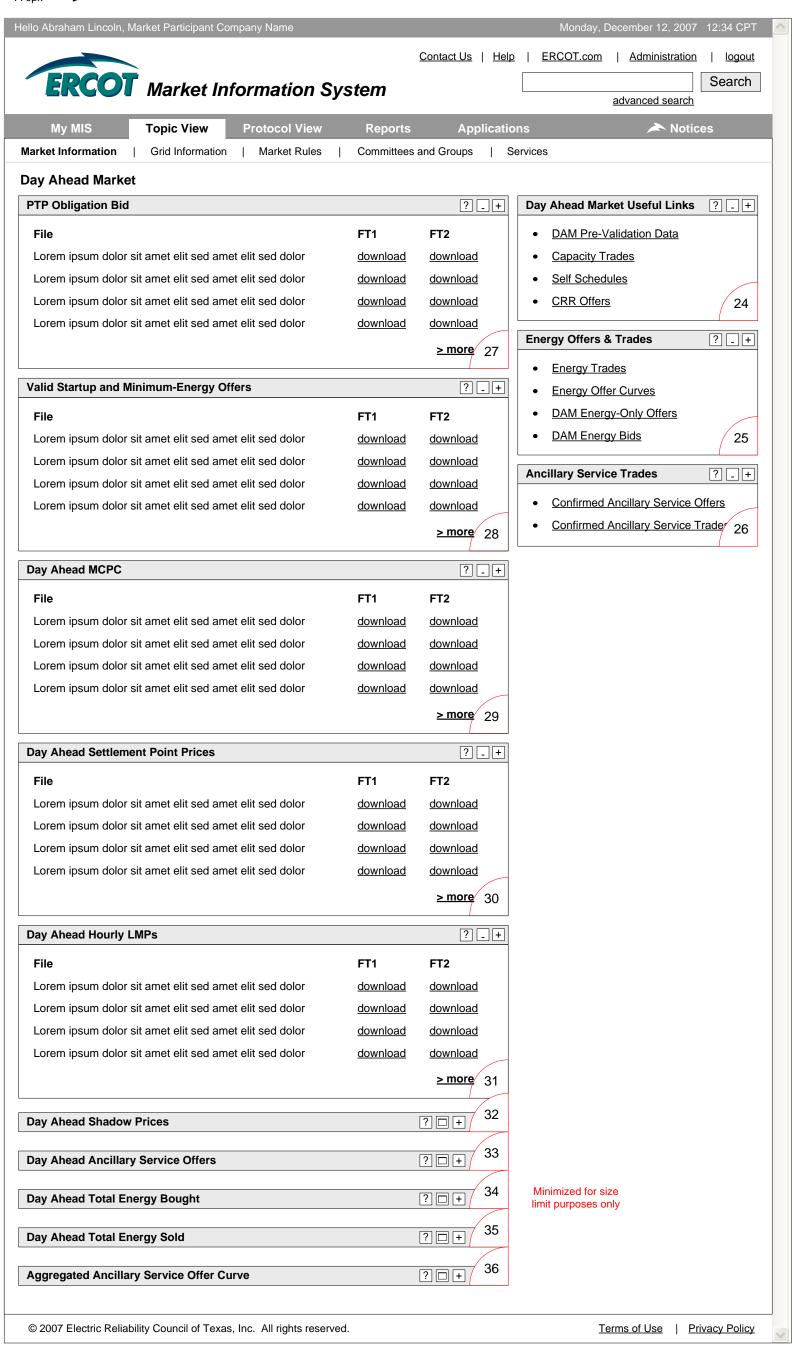
Pages other than the My MIS page primarily serve as a means for users to find portlets (and see them in action) for addition to their My MIS page.

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Market Information - Day Ahead Market





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"Useful Link" portlets

singular in topic, that cannot be logically

contain 'orphaned links' - links that are

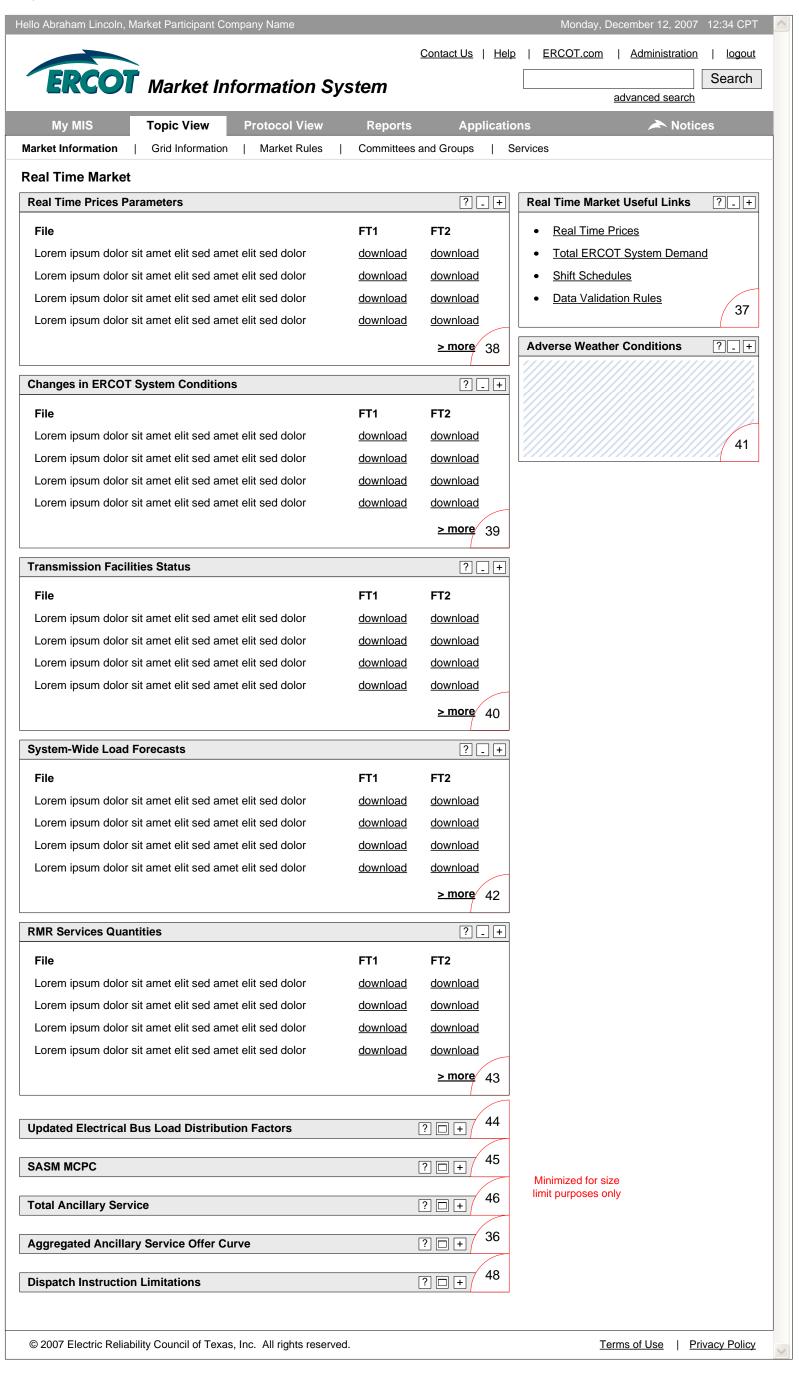
placed in a topic-

oriented portlet



Market Information - Real Time Market





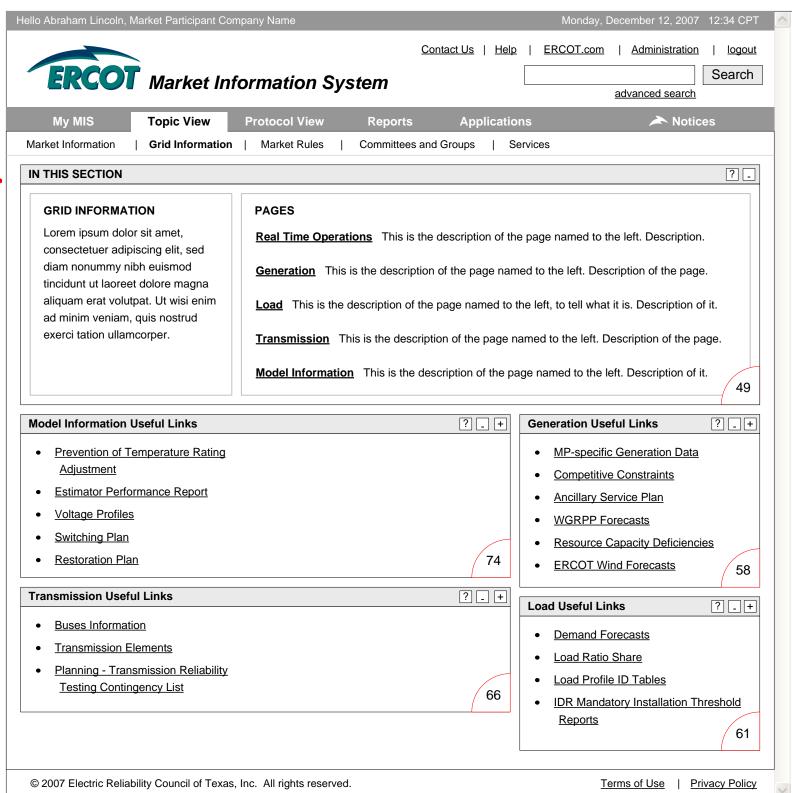
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List of pages

and portlets available in this section

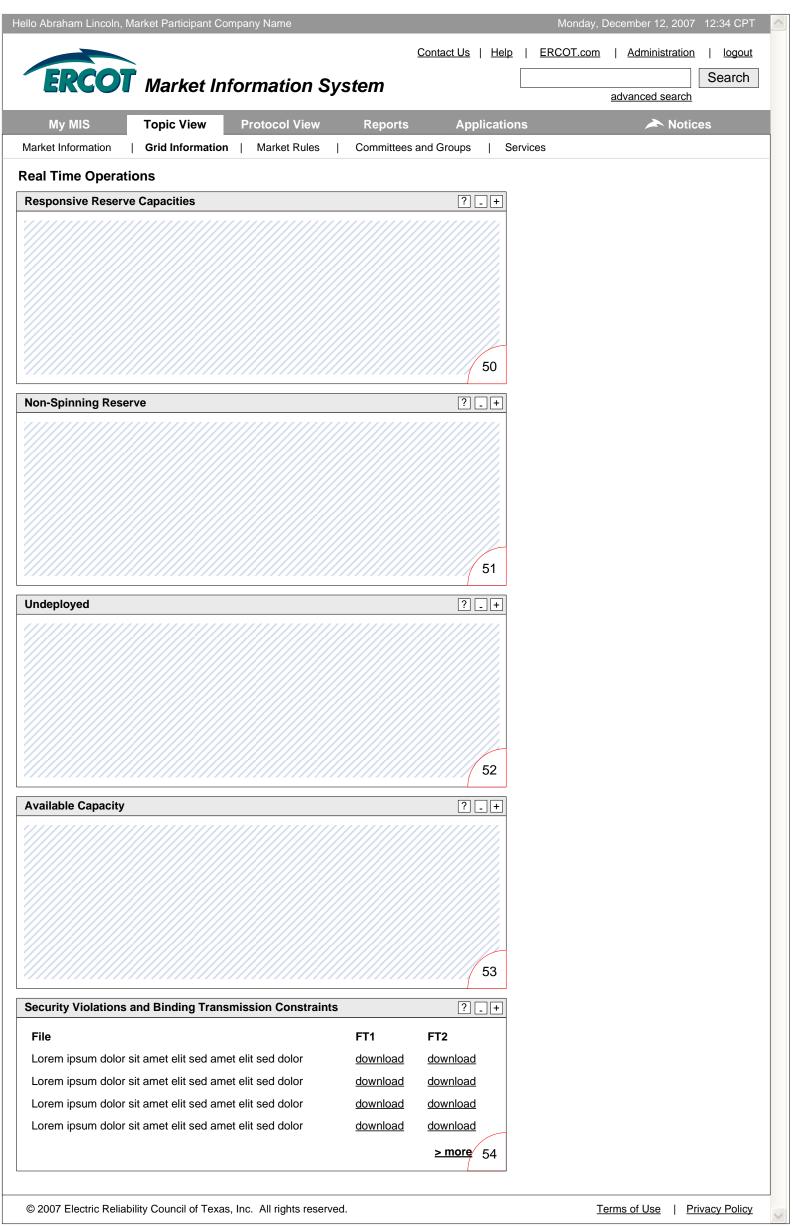


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Real Time Operations



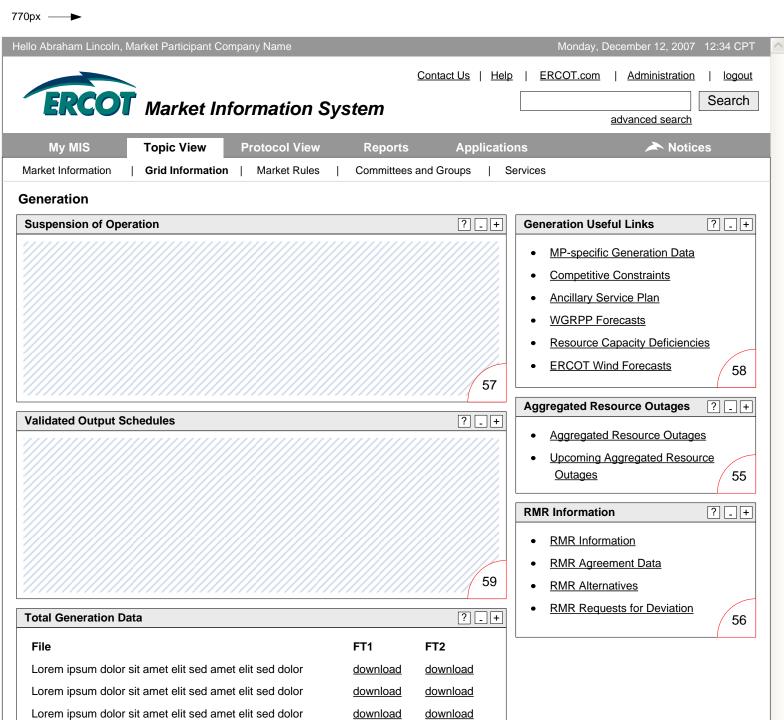


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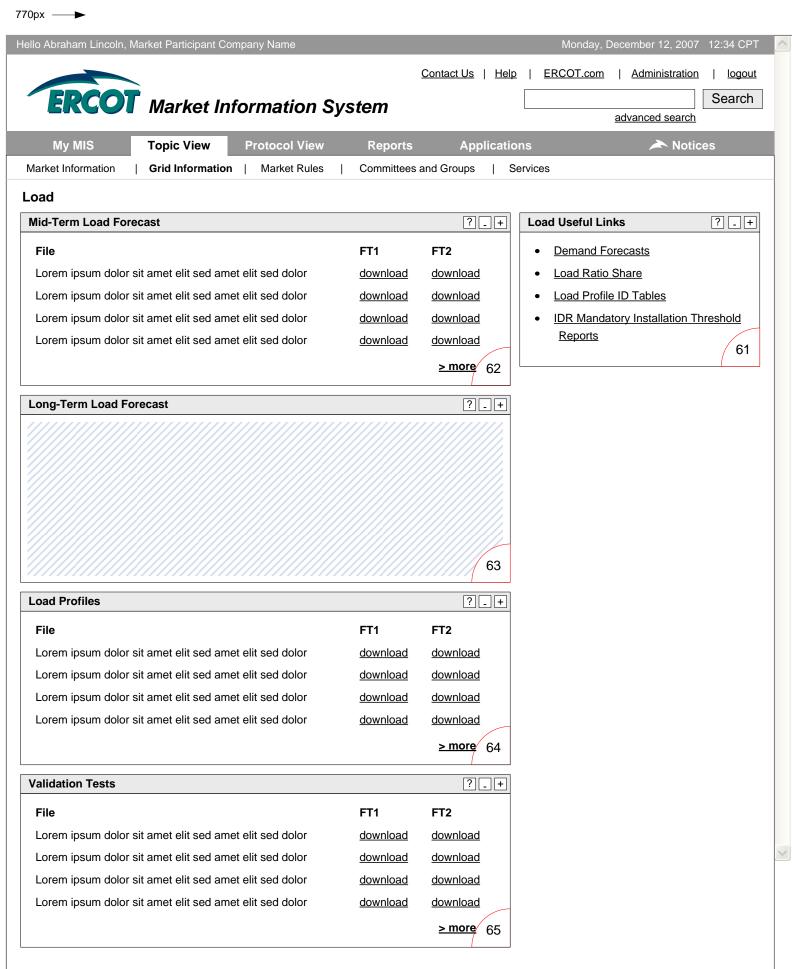
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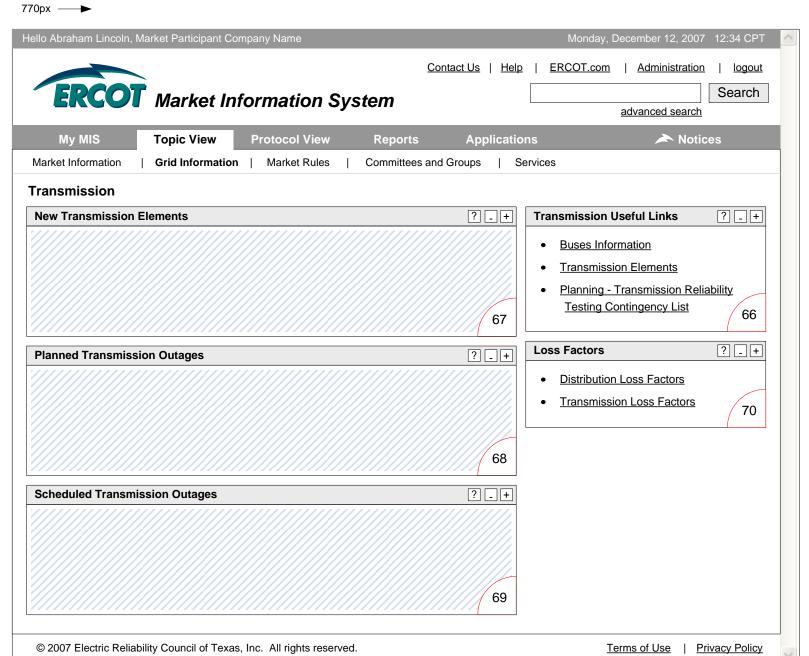


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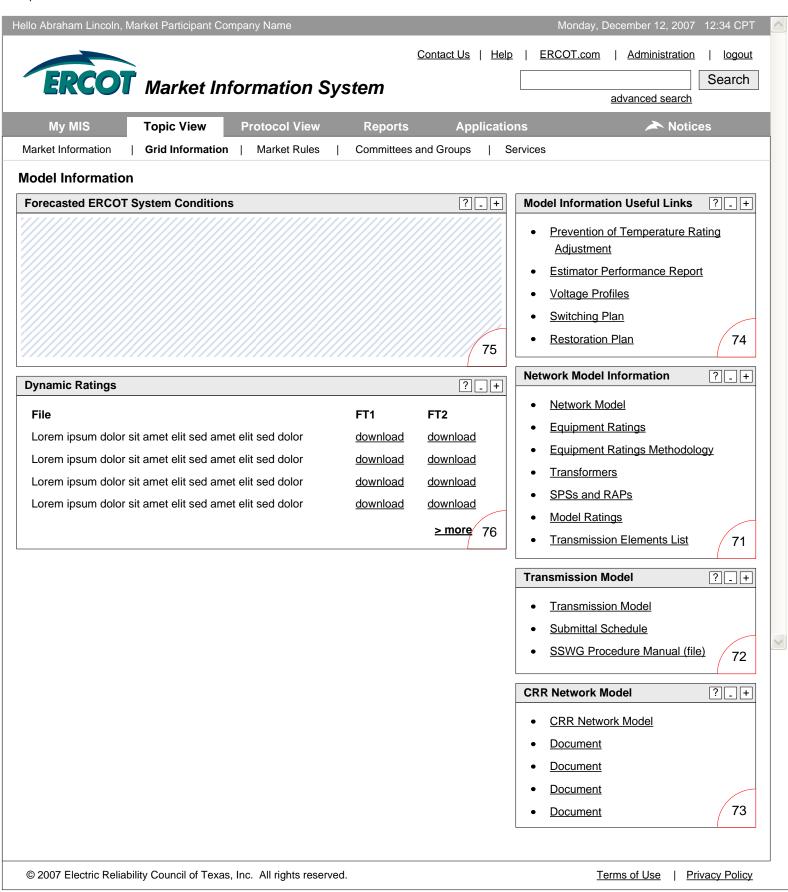


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Model Information

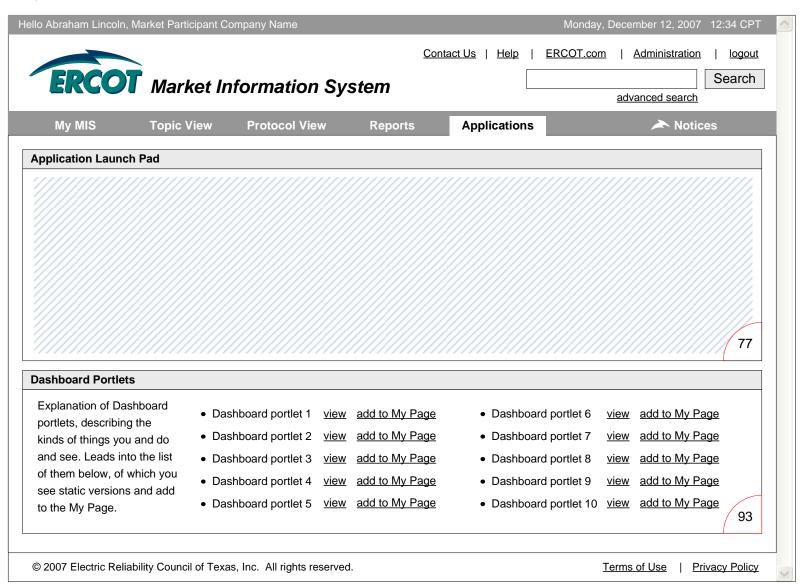




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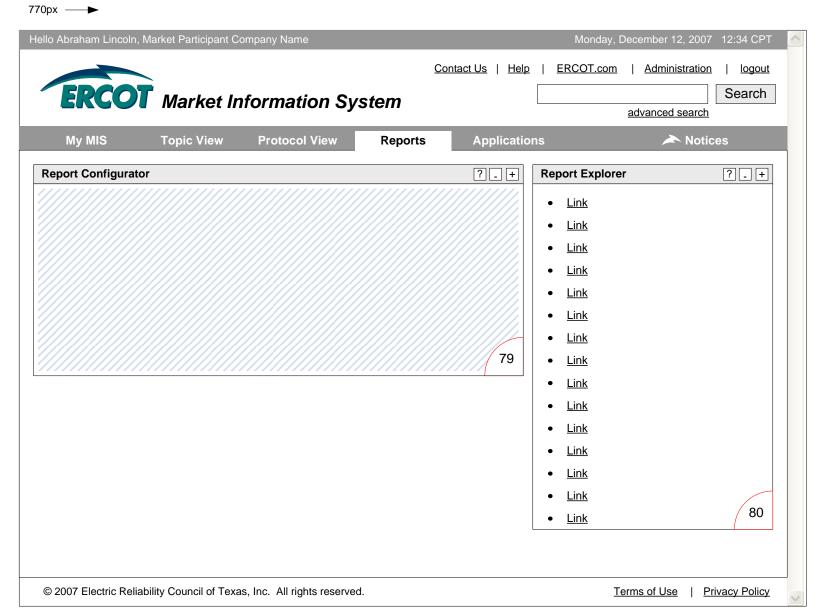


770px —**▶**



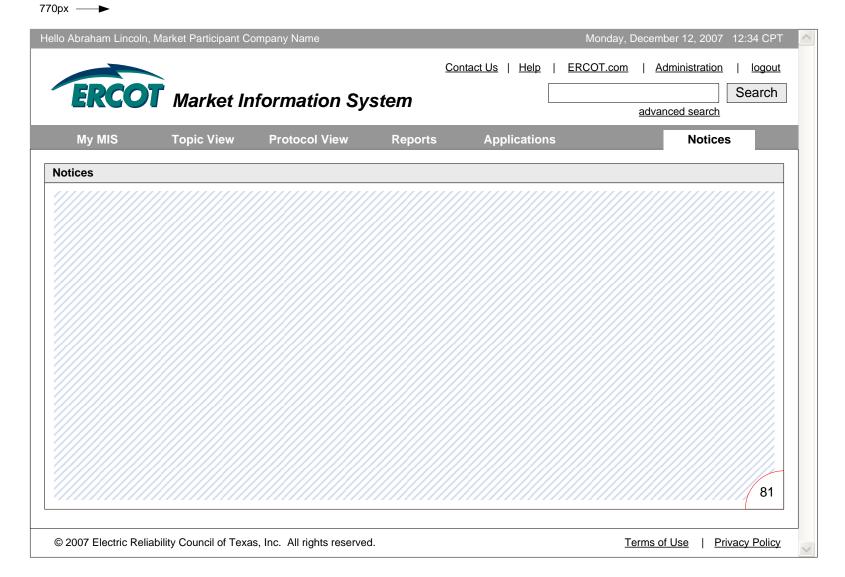
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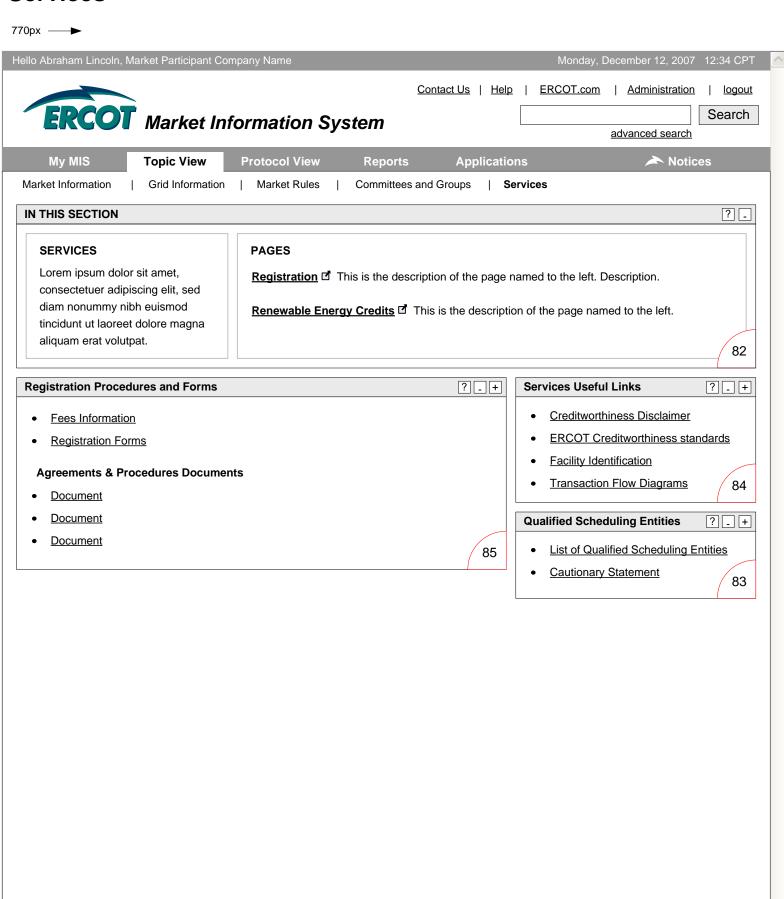
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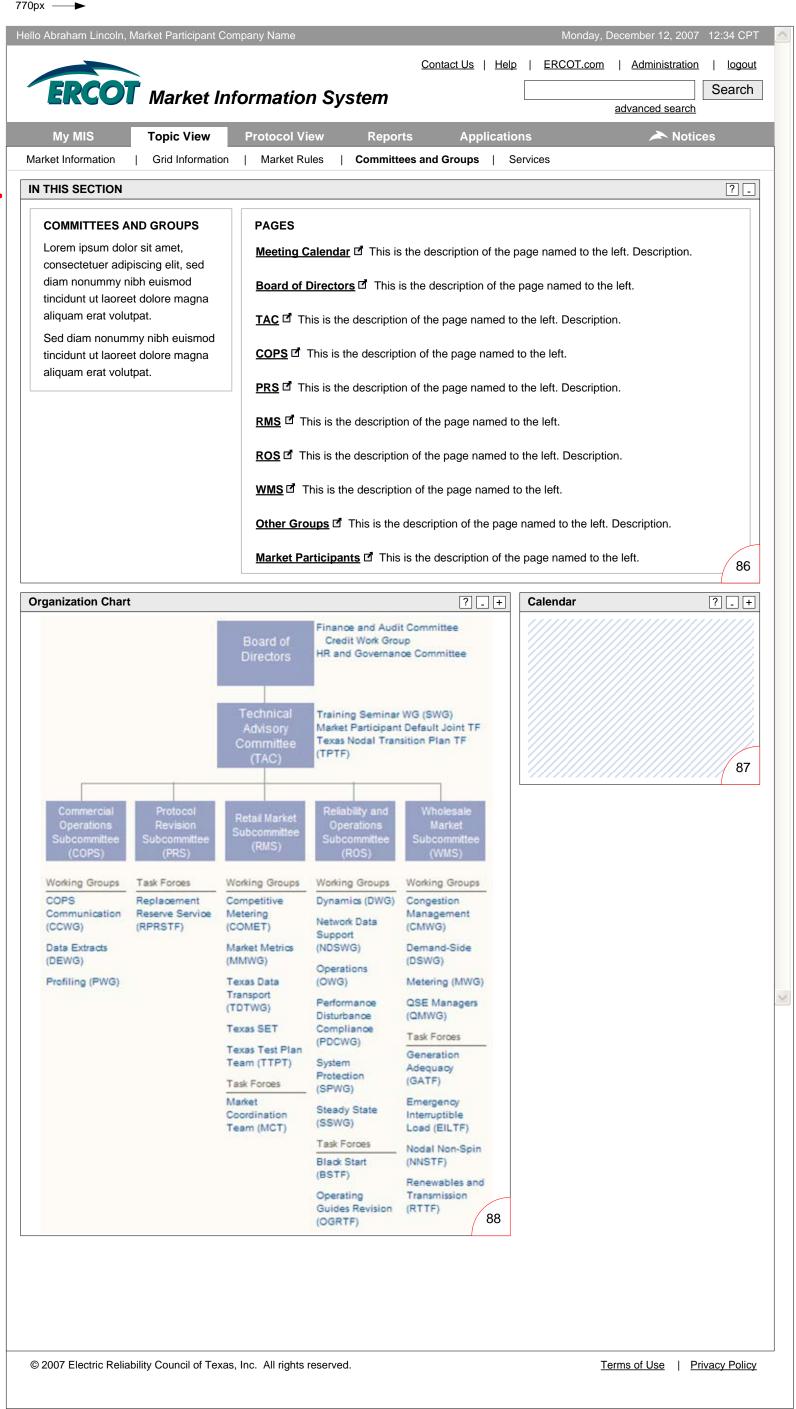


List of pages

and portlets available in this section

Committees and Groups

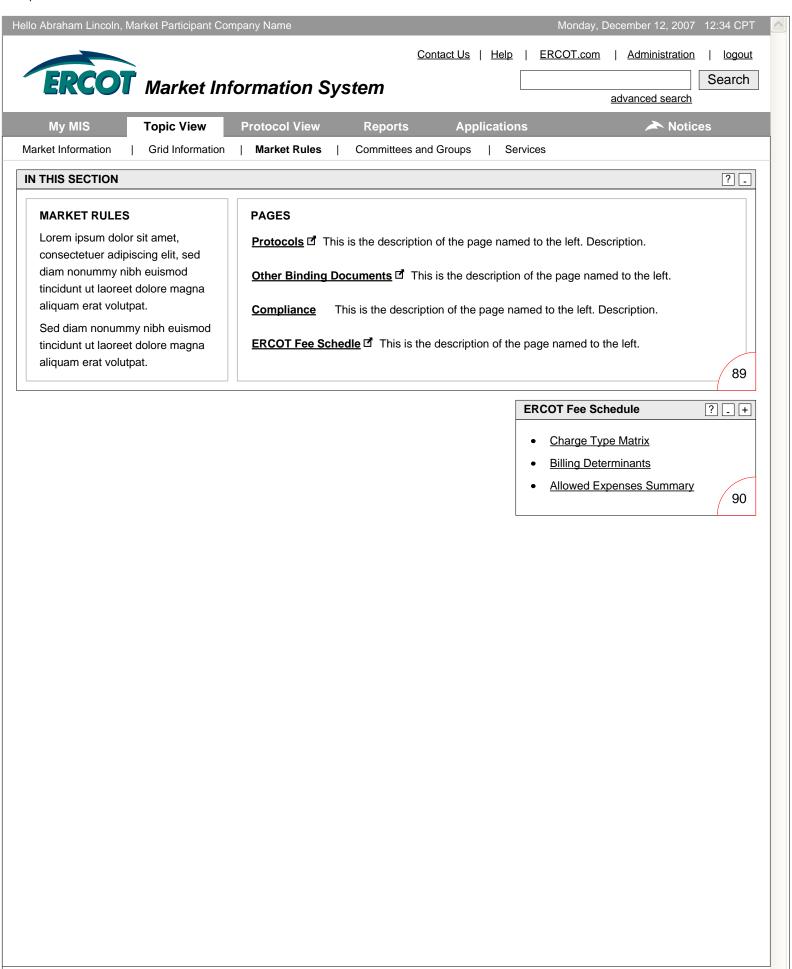
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Sequences for Prototype Testing

The following pages represent sequences of user interaction that demonstrate aspects of the MIS Portal functionality. The sequences are valuable in validating navigation concepts and basic interaction flows.

The sequences are as follows:

1a – Navigate to *Grid Information/Load* page

Demonstrates basic section-to-section navigation

1b - Find Load Profiles portlet, add it to My Page

Demonstrates how users can find topics and one way of adding them to their MyPage

- 2a Minimize Load Forecasts portlet, return to normal
- 2b Maximize Load Profiles portlet, return to normal
- **2c** Remove *Load Profiles* portlet

Demonstrates how users can manipulate the presentation of portlets on their MyPage.

Recommended Plan for Prototype Testing

Typically, Prototype Testing is based upon a comprehensive representation of features of the system in development. Also, testing typically involves example users, or user SMEs, guided by a moderator and test script, and results gathered in a scientific way.

The sequences listed above comprise the current, specified Portal interactive sequences deemed stable enough to be evaluated considering the current status of the project. They cannot be considered "comprehensive", nor can the content and functionality depicted be so considered; therefore any such plan for Prototype Testing must follow suit.

Recommendation: Modified Heuristic Evaluation by select members of the Project team

Per Wikipedia:

A heuristic evaluation is a usability evaluation method for computer software that helps to identify usability problems in the user interface (UI) design. It specifically involves evaluators examining the interface and judging its compliance with recognized usability principles (the "heuristics").

In the case of this project and its current state of development, a "scaled back" method of heuristic evaluation would yield results that help validate the design direction.

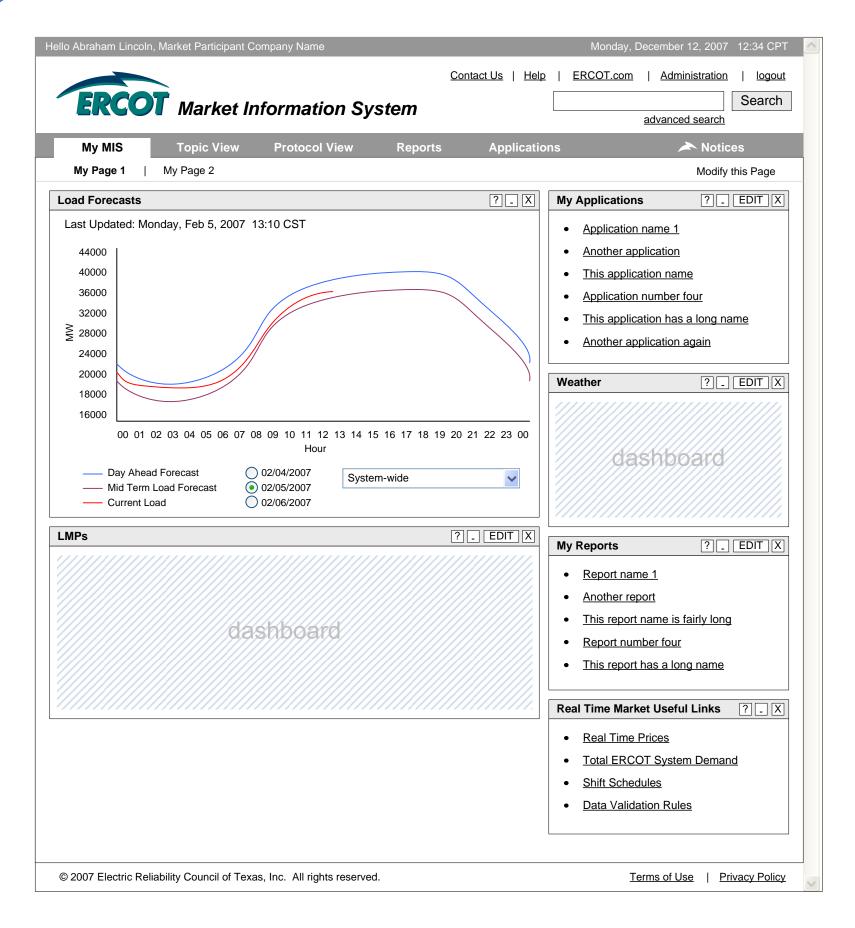
Suggested Plan:

- 1) Identification of 3-4 Project team members to act as Evaluators
- 2) Identification of 1 Project team member as Moderator, 1 as Observer
- 3) Preparation of printed copies of the Prototype Sequences in this document
- 4) Individual sessions scheduled with each Evaluator
- 5) Walkthrough of the Prototype Sequences by the Moderator with the Evaluator
- 6) Feedback obtained about the Walkthrough
- 7) Replication of each Sequence by the Evaluator, using hands-on methods
- 8) Observations noted, feedback obtained, and compiled into a Document for review

The results of the Evaluation would be analyzed and any recommendations targeted to Prototypes 2 and 3.

1a

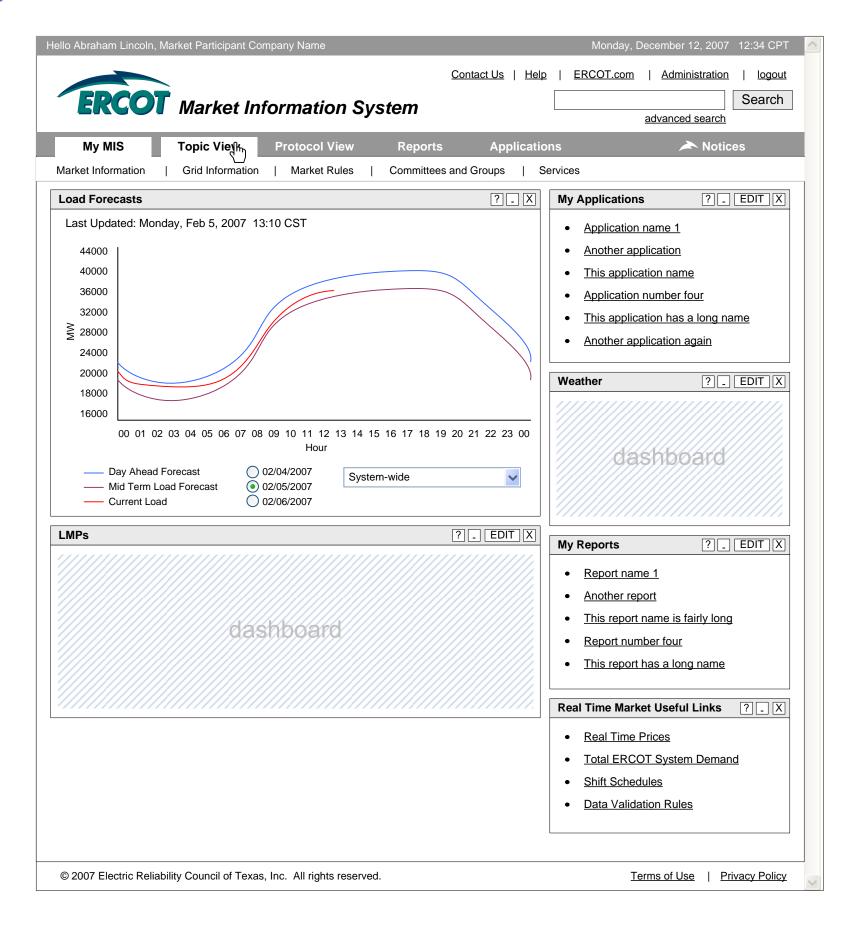
Navigate to "Load" Page - Step 1



- The user is presented with their MyPage
- Their task is to navigate to the Topic View/ Grid Information/Load page by using the Main Navigation menu and associated flyout menus.

1a

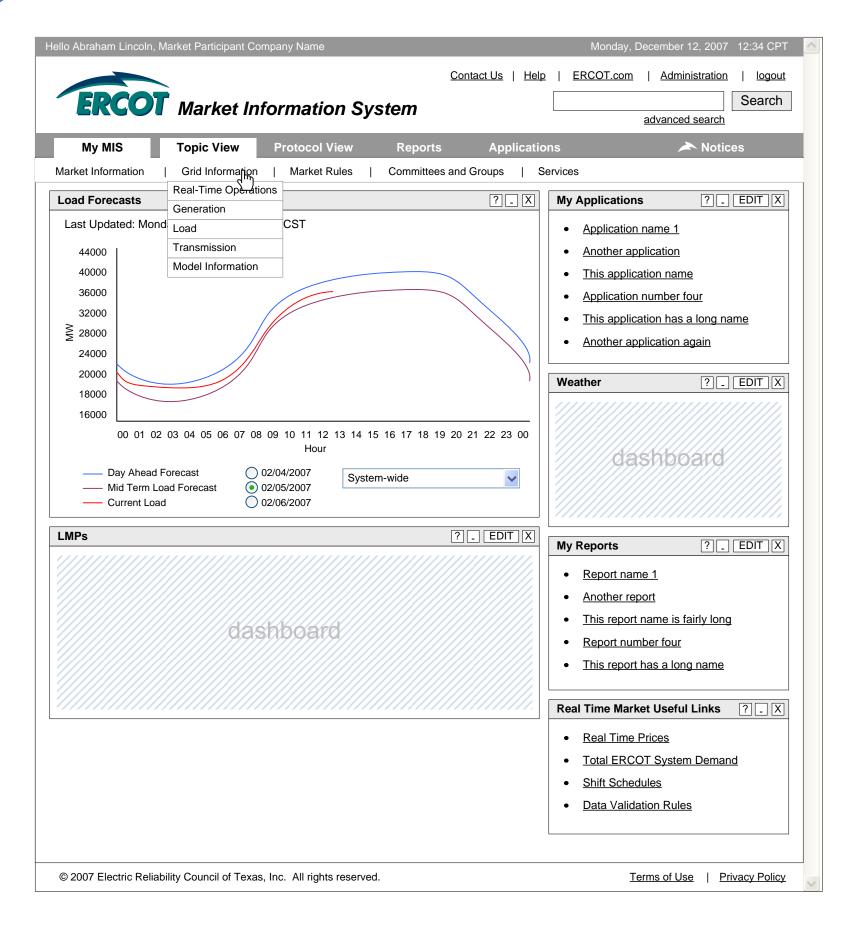
Navigate to "Load" Page - Step 2



- The user has rolled their mouse pointer over the "Topic View" Main Menu item.
- The "Topic View" fly-out menu has appeared, displaying various sections.

1a

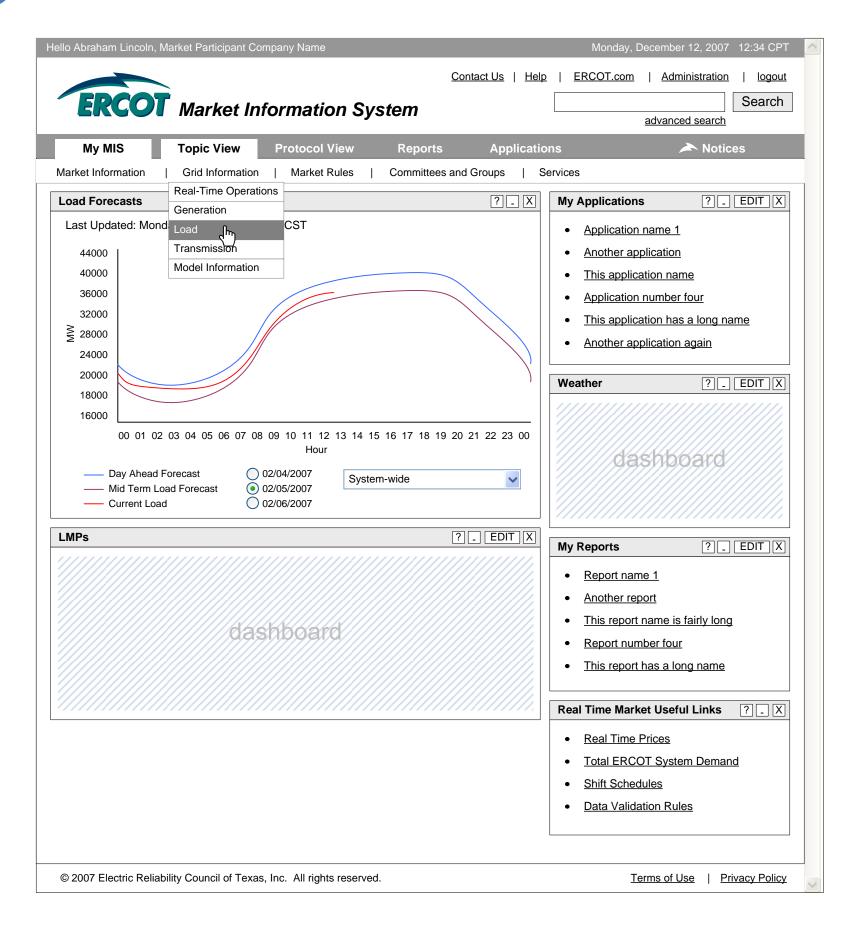
Navigate to "Load" Page - Step 3



- The user has rolled their mouse pointer over the "Grid Information" Main Menu item.
- The "Grid Information" fly-out menu has appeared, displaying various pages within that section.

(1a)

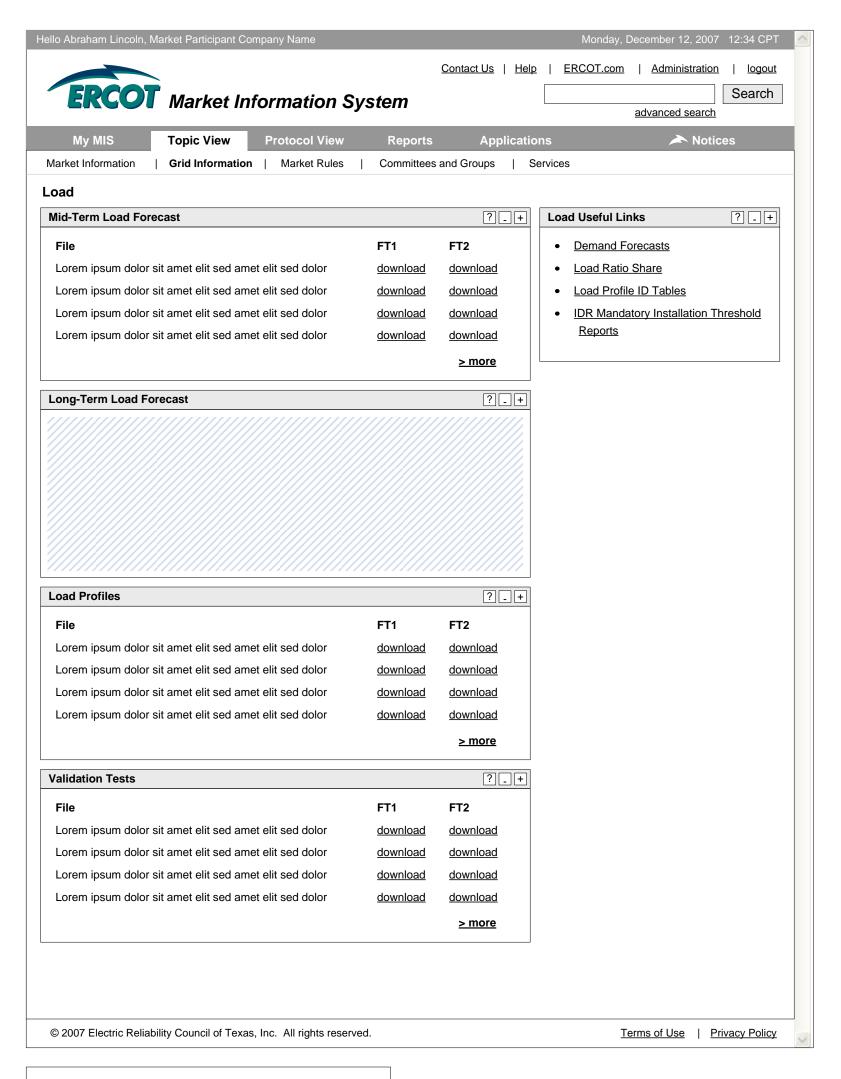
Navigate to "Load" Page - Step 4



- The user has rolled their mouse pointer over the "Load" page menu item.
- The user may click that item to navigate to the "Load" page.



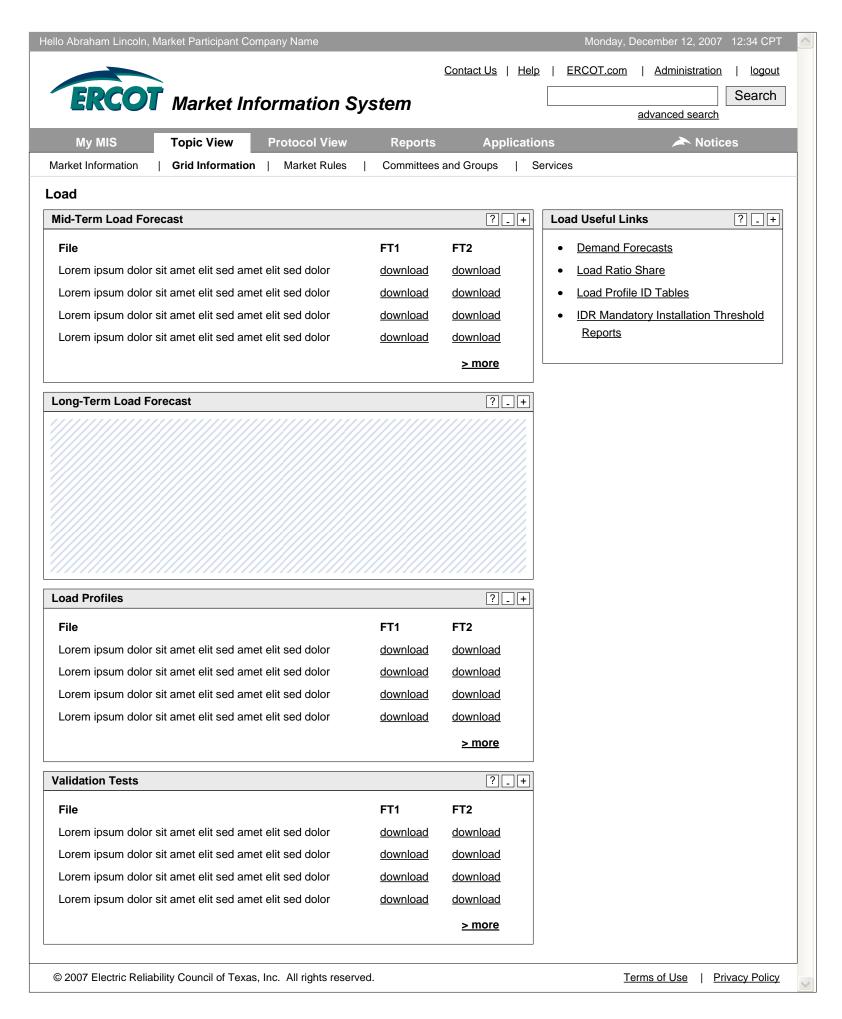
Navigate to "Load" Page - Step 5



- The user has clicked the "Load" menu item and has arrived at the "Load" page.
- END OF SEQUENCE.



Find the "Load Profiles" Portlet, add to MyPage - Step 1

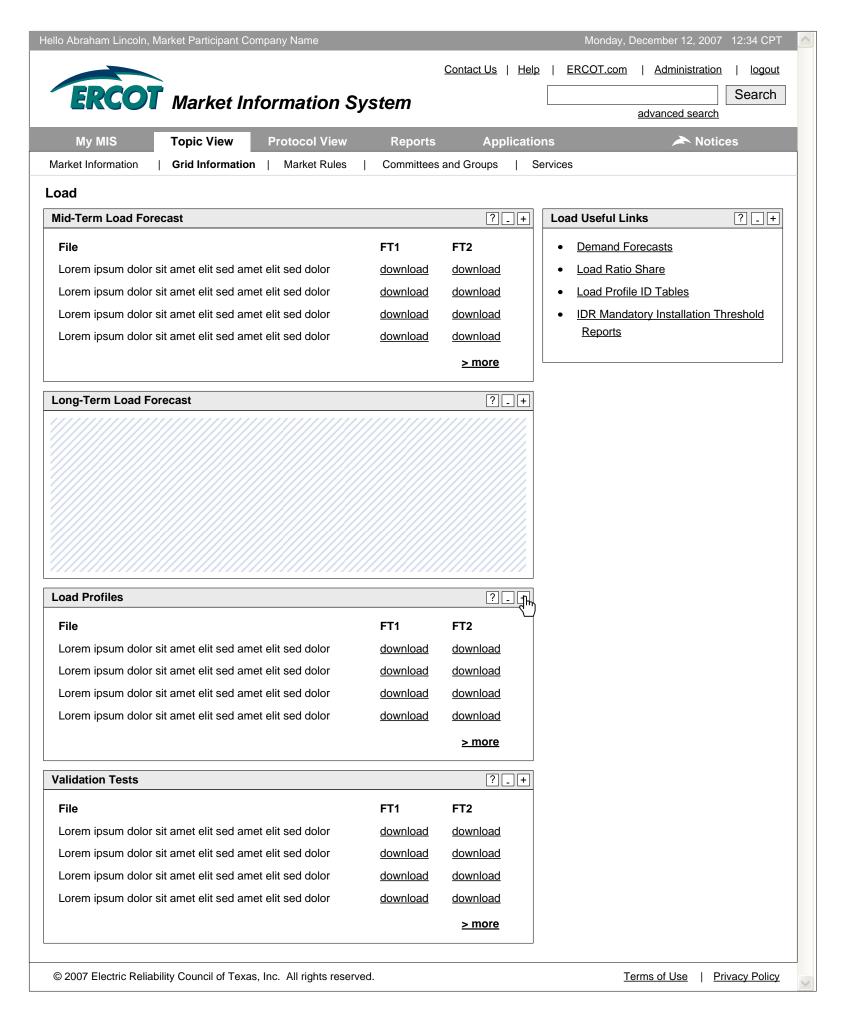


In this step

 The user has navigated to the "Load" page and is trying to find the "Load Profiles" portlet.



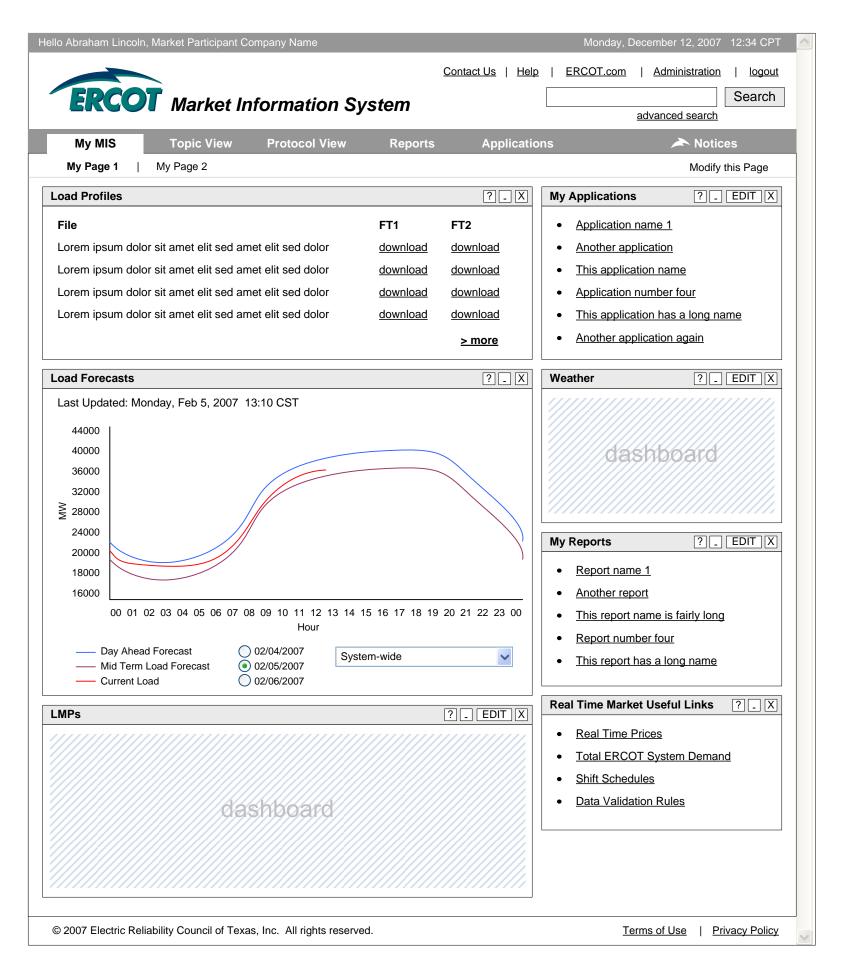
Find the "Load Profiles" Portlet, add to MyPage - Step 2



- The user has found the "Load Profiles" portlet and has decided to add it to their MyPage.
- The user clicks the + button associated with the "Load Profiles" portlet.



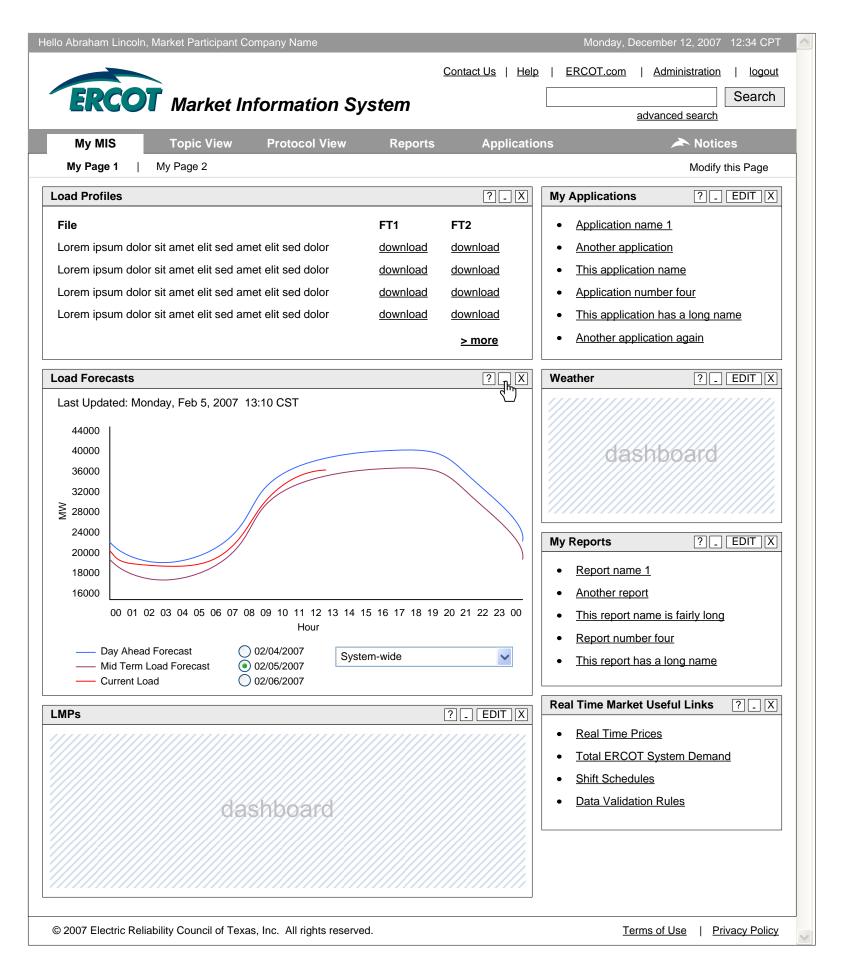
Find the "Load Profiles" Portlet, add to MyPage - Step 3



- The user has clicked the + button associated with the "Load Profiles" portlet.
- The portlet has automatically brought the user to the MyPage.
- The MyPage now displays the "Load Profiles" portlet at the top of the first column of portlets.
- END OF SEQUENCE.



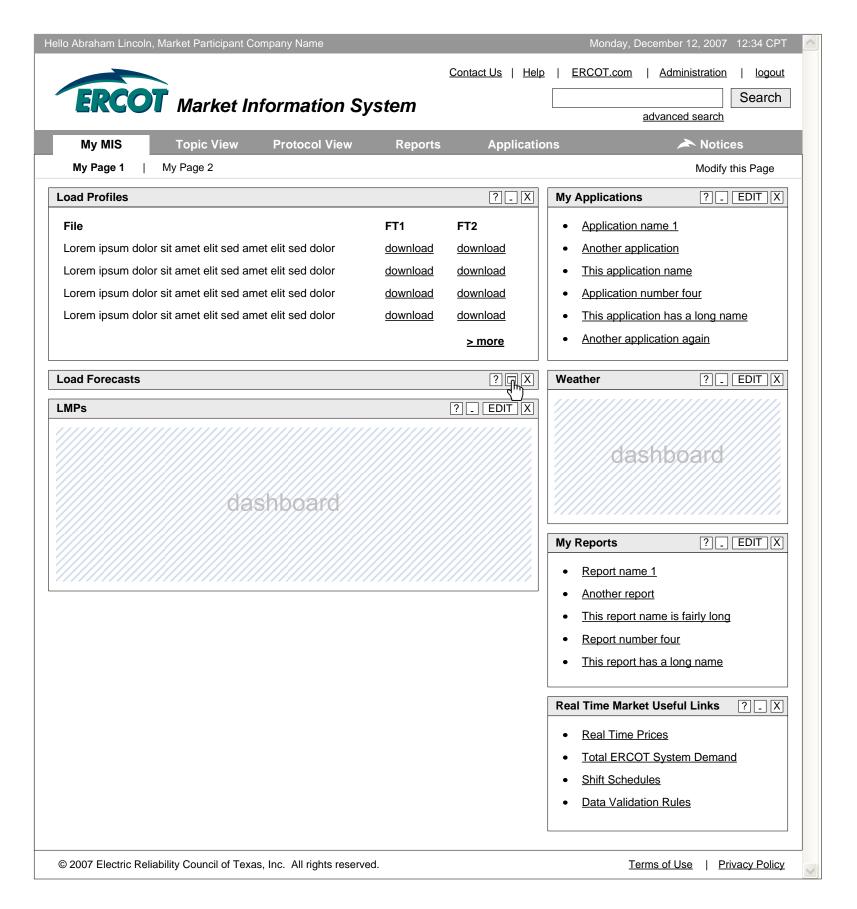
Minimize Load Forecasts portlet, return to normal - Step 1



- The user is currently viewing their MyPage and decides to minimize the size of the "Load Forecasts" portlet
- The user clicks the _ button to minimize the portlet.



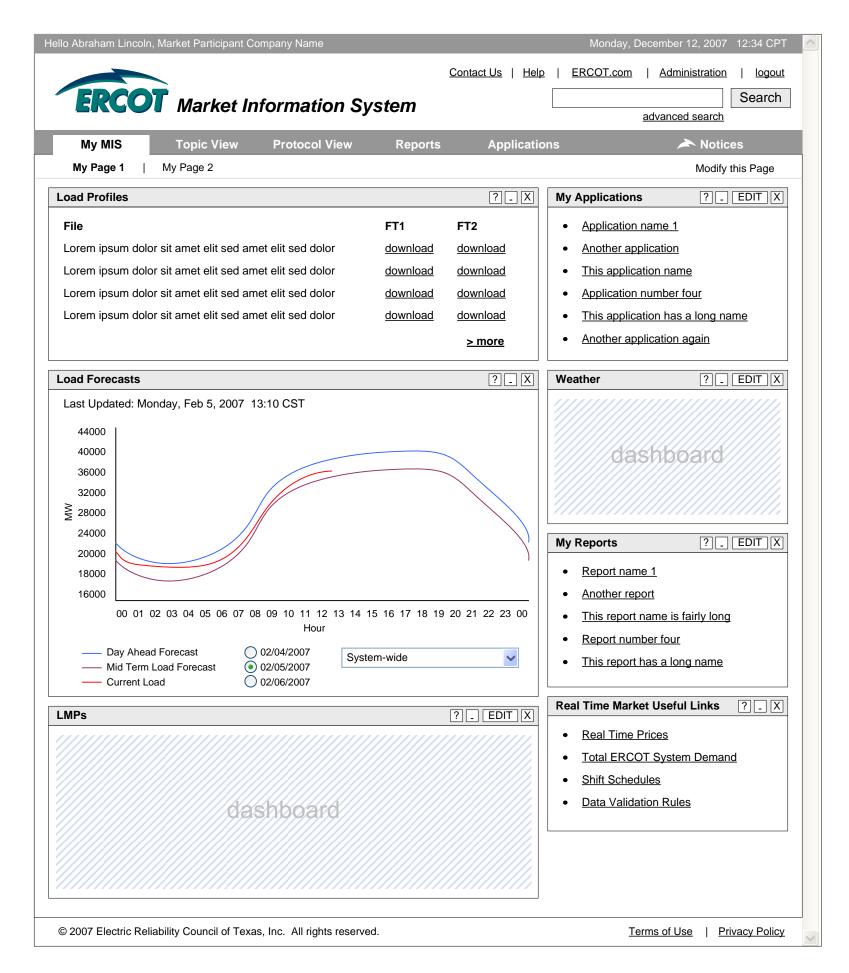
Minimize Load Forecasts portlet, return to normal – Step 2



- The "Load Forecasts" portlet now only displays its header – it has been minimized.
- The _- button has been replaced with the __ button.
- The user decides to return the portlet to its normal presentation style, and clicks the button to minimize the portlet.



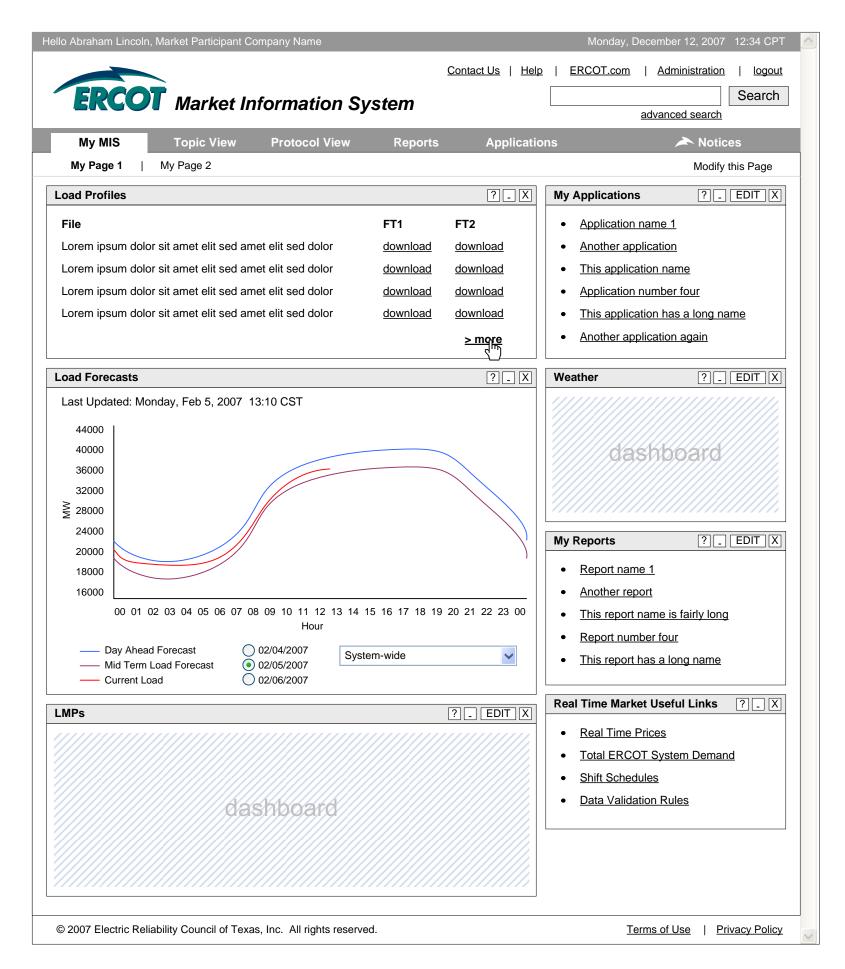
Minimize Load Forecasts portlet, return to normal - Step 3



- The "Load Forecasts" portlet has returned to its normal presentation style.
- END OF SEQUENCE.



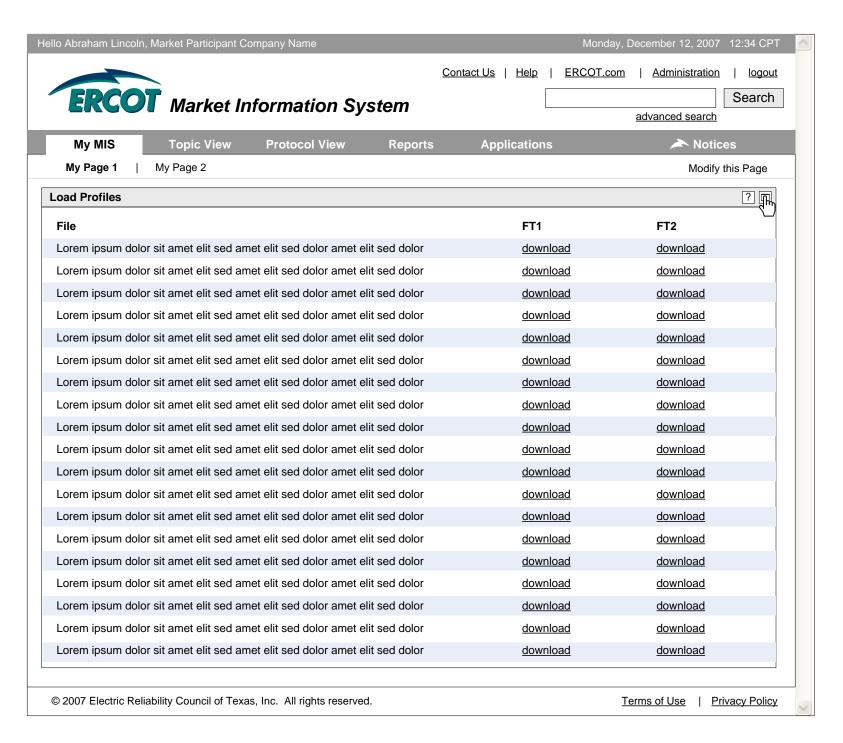
Maximize Load Profiles portlet, return to normal - Step 1



- The user is currently viewing their MyPage and decides to maximize the size of the "Load Profiles" portlet
- The user clicks the <u>> more</u> link inside the portlet to maximize the portlet.



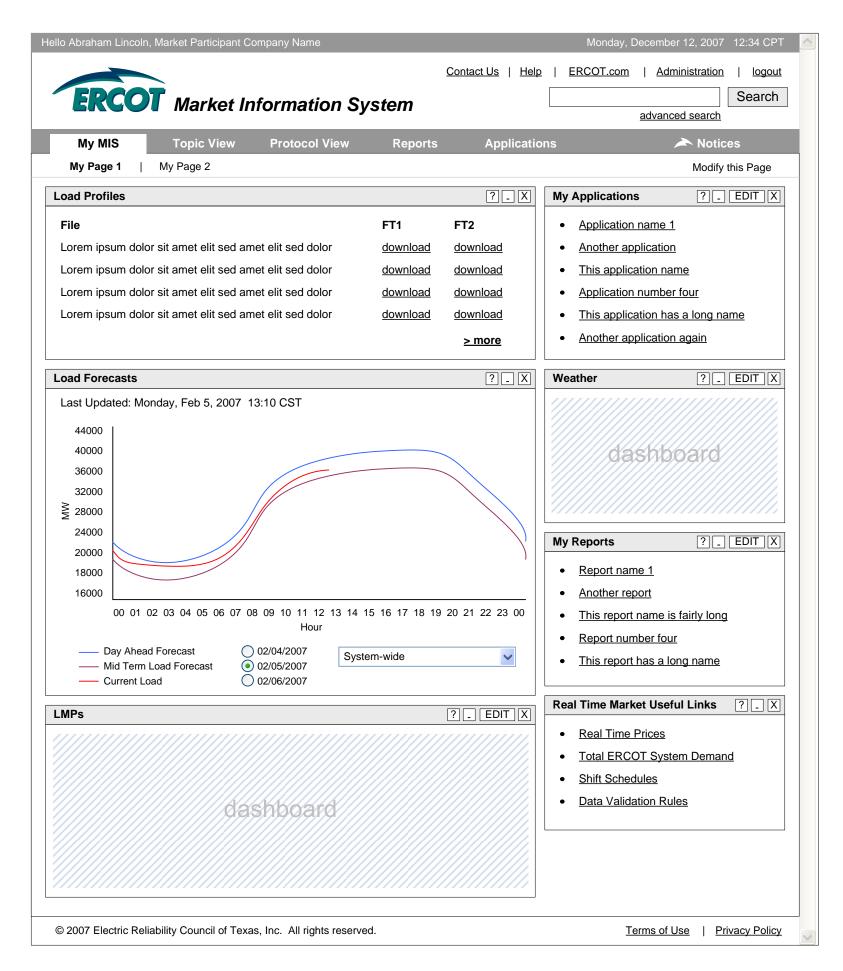
Maximize Load Profiles portlet, return to normal - Step 2



- The "Load Profiles" portlet has maximized to fill the entire content area of the screen.
- The user decides to return the portlet to its normal size by clicking the button.



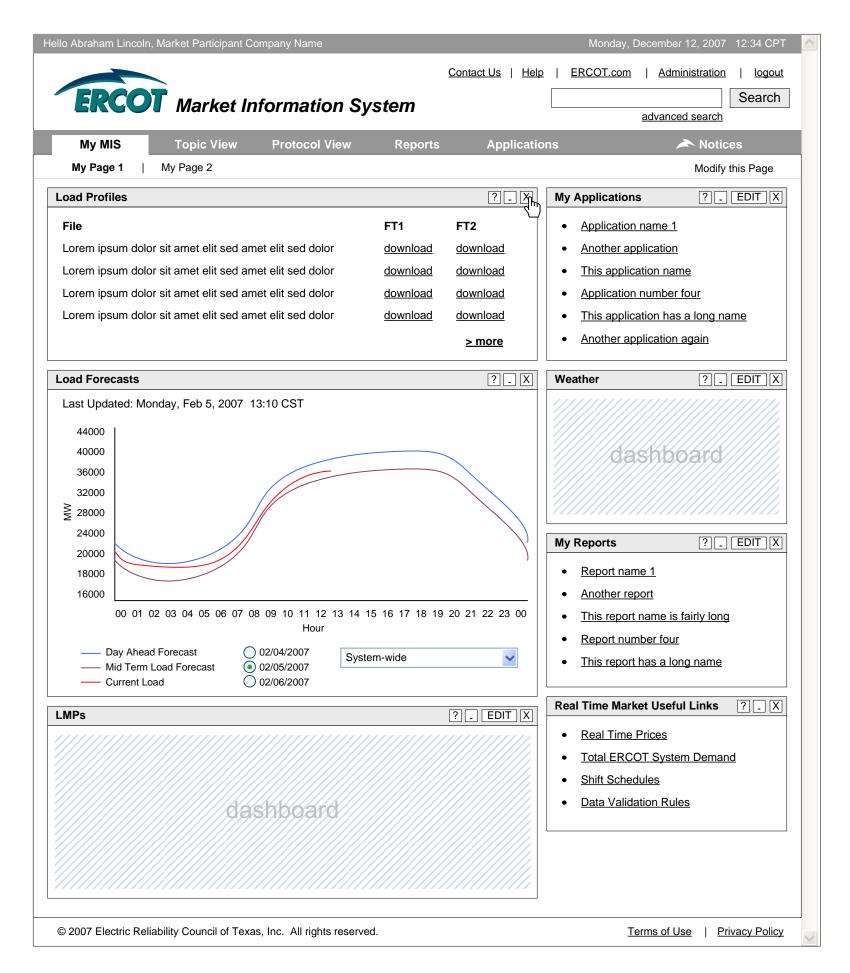
Maximize Load Profiles portlet, return to normal – Step 3



- The "Load Profiles" portlet has returned to its normal presentation size.
- END OF SEQUENCE.

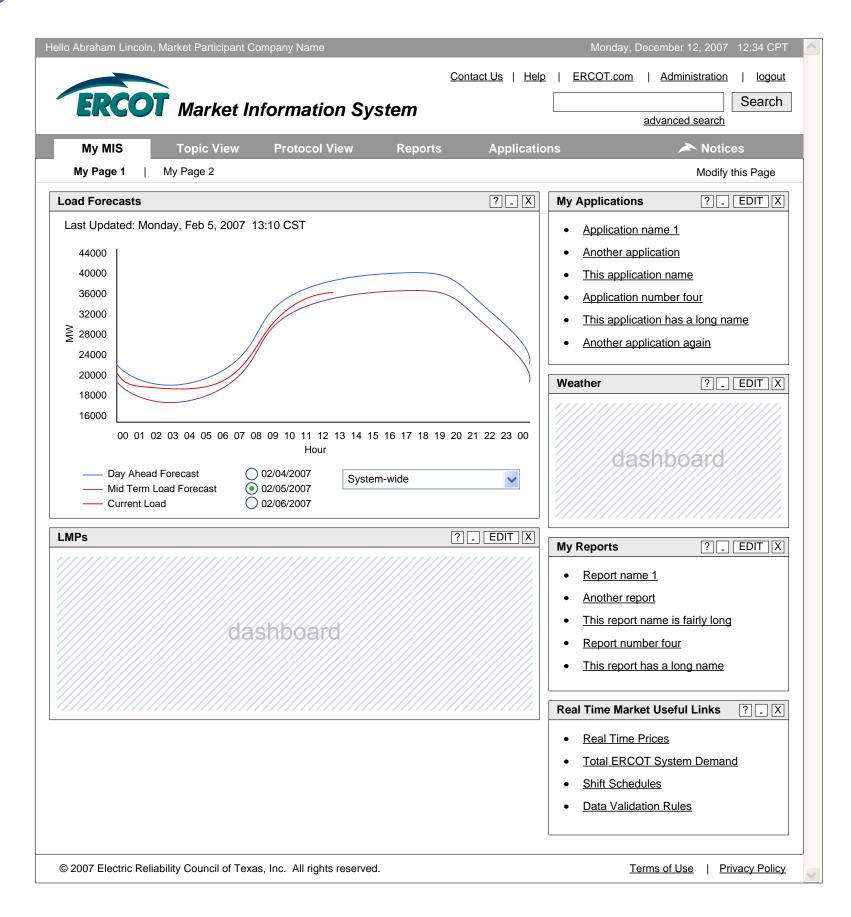


Remove Load Profiles portlet - Step 1



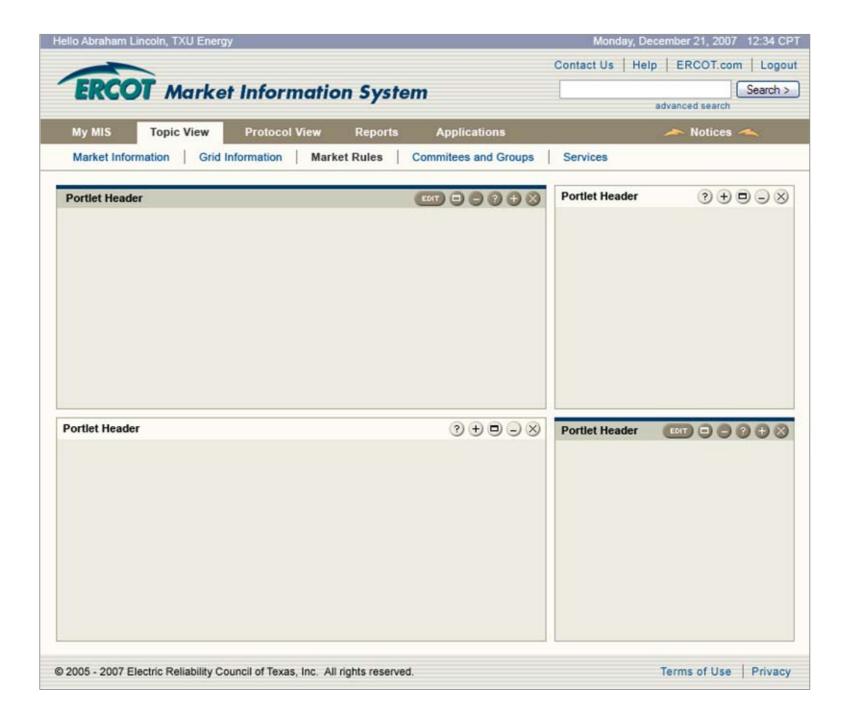
- The user is currently viewing their MyPage and decides to remove the "Load Profiles" portlet
- The user clicks the X inside the portlet to remove the portlet.

Remove Load Profiles portlet - Step 2



- The user has clicked the X button, the page is refreshed.
- The "Load Profiles" portlet no longer appears on the user's MyPage.
- END OF SEQUENCE.

Visual Design Strategy



The image above is the ERCOT MIS Portal team-approved Visual Design Strategy. It is an accurate indication of how the MIS Portal will look when displayed in a web browser.

Portlets are shown in an empty state, and are meant to indicate design style only.