FAX NO. 5124873998

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P. 05

POLR POWER LP	076882203
STRATEGIC ENERGY LLC (LSE)	800770810
TENASKA POWER SERVICES CO (LSE)	015016913
TXU ENERGY	1733370281000
TXU ET SERVICES COMPANY (LSE)	1733370281500
TXU SESCO ENERGY SERVICES COMPANY (SUBLSE)	1733370281400
ASSURANCE ENERGY (TXU LARGE NONRESIDENTIAL POLR)	1733370281300
ASSURANCE ENERGY (TXU RESIDENTIAL POLR)	1733370281100
ASSURANCE ENERGY (TXU SMALL NONRESIDENTIAL POLR)	1733370281200

Your organization must re-qualify according to the Texas Test plan Team (TTPT) retesting guidelines if you change the process or systems you use to interface with your trading partners.

Once again, thank you for your participation and congratulations.

Kiling J.

Sincerely

Raymond A. Giuliani, Jr.

Vice President and Chief of Market Operations

ERCOT





Dccember 1, 2003

Barry Howell ENTERGY GULF STATES INC 919 Congress Suite 840 Austin, TX 78701

### Dear Barry Howell:

On behalf of the Electric Reliability Council of Texas (ERCOT) and the Texas Test Planning Team (TTPT), we want to thank ENTERGY GULF STATES INC for participating in the ERCOT Retail Qualification Testing Process, and congratulate you on your successful qualification to participate in the ERCOT electric market, pursuant to ERCOT Protocols, Section 23.

ENTERGY GULF STATES INC (DUNS number 827438383) has qualified for the ERCOT EDI Interface(s) and ERCOT Market Portal with ERCOT and with the following Competitive Retailer trading partners in the TX SET V1.6 business rules.

### ENTERGY GULF STATES INC 827438383

CR Trading Partners:	
ANP POWER DIRECT COMPANY (LSE)	125145693
APS ENERGY SERVICES CO.	084611867
CONSTELLATION NEWENERGY, INC (LSE)	8797234681000
CORAL POWER LLC (LSE)	9375172661000
CORAL POWER SOLUTIONS (LSE)	9375172661100
DYNEGY ENERGY MARKETING LP	009924445
ENTERGY SOLUTIONS LTD	007721512
CPL RETAIL ENERGY LP (LSE)	017740544
WTU RETAIL ENERGY LP (LSE)	017741294
MUTUAL ENERGY SWEPCO LP (LSE)	017741575
POLR POWER LP	076882203
RELIANT ENERGY RETAIL SERVICES LLC	799530915
RELIANT ENERGY RETAIL SERVICES LLC POLR DIVISION	029691099
RELIANT ENERGY SERVICES CHANNELVIEW LLC	114743953

Austin

7620 Metro Center Orive Austin, Texas 78744 2705 West Lake Drive Taylor, Texas 76574

Taylor

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RELIANT ENERGY SOLUTIONS LLC	616498114
RELIANT ENERGY SOLUTIONS LLC POLR DIVISION (LSE)	029692659
TEXAS STAR ENERGY COMPANY	799533091
TEXAS STAR ENERGY COMPANY LNR (LSE)	037667420
SEMPRA ENERGY SOLUTIONS	968254276
STRATEGIC ENERGY LLC (LSE)	800770810
TENASKA POWER SERVICES CO (LSE)	015016913
TXU ENERGY	1733370281000
TXU ET SERVICES COMPANY (LSE)	1733370281500
TXU SESCO ENERGY SERVICES COMPANY (SUBLSE)	1733370281400
ASSURANCE ENERGY (TXU LARGE NONRESIDENTIAL	
POLR)	1733370281300
ASSURANCE ENERGY (TXU RESIDENTIAL POLR)	1733370281100
ASSURANCE ENERGY (TXU SMALL NONRESIDENTIAL	
POLR)	1733370281200

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Once again, thank you for your participation and congratulations.

Sincerely,

Raymond A. Giuliani, Jr.

Vice President and Chief of Market Operations

**ERCOT** 

### **LOAD PROFILE CLASSES**

A description of Entergy's load profile classes follows. Load profiles are developed for all ESI-IDs who do not have an interval data recorder (IDR) installed and for non-metered loads. IDR customers will have load profiles developed for market settlement purposes if actual IDR data is not available.

New ESI-IDs with no historical kWh or kW data will be assigned to a default profile until sufficient kWH or kW data is collected to place the ESI-ID into the appropriate profile class.

An annual review of profile class assignments will be made to ensure accurate assignment. ESI-lds will be moved to a new profile class if their individual assignment criteria changes.

Load Profile Class	Load Profile Class Description	Criteria for Assignment to Load Profile Class
ETR_RESHIWR_BMT	Residential High Winter Usage	In order to determine if a residential customer is in the high winter use or low winter use category, the winter use ratio is calculated as follows:
		Max (ADU <sub>Dec</sub> ,ADU <sub>Jan</sub> ,ADU <sub>Feb</sub> ) WR = Avg(Fall Base, Spring Base)
		ADU = average daily use = kWh/days in billing cycle
		Fall Base is defined as the minimum of ADU in the billing months of October and November
		Spring Base is defined as the minimum of ADU in the billing months of March and April
		Residential customers in the High Winter Use class have a WR of more than 1.5
ETR_RESLOWR_BMT	Residential Low Winter Usage	Residential customers in the Low Winter Use class have a WR of 1.5 or less
		Residential customers without sufficient data to calculate a WR are defaulted to this class
ETR_BUS_LT5KW_BMT	Non-Residential No Demand	Non-Residential customers who do not have a demand meter installed for billing purposes or whose billing demand is less than 5 kW.

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ETR_BUS_0_20_LF_BMT	Non-Residential with Load Factor between 0 – 20%.	In order to establish a load factor for non- residential customers with a demand meter, average load factor is defined as follows:  12 \( \sum_{i=1}^{2} \) AHU <sub>i</sub> Avg LF =
		KW = highest kW in month  Non-residential, demand metered customers with an Average LF < .20 are assigned to this group
ETR_BUS_20_40_LF_BMT	Non-Residential with Load Factor between 20 – 40%.	Non-residential, demand metered customers with 0.20 <= Avg LF <= .40
ETR_BUS_40_60_LF_BMT	Non-Residential with Load Factor between 40 – 60%.	Non-residential, demand metered customers with 0.40 <= Avg LF <= .60.  This is also the default profile assignment for demand metered non-residential customers without sufficient data to calculate Avg LF
ETR_BUS_60_80_LF_BMT	Non-Residential with Load Factor between 60 – 80%.	Non-residential, demand metered customers with 0.60 <= Avg LF <= .80
ETR_BUS_80_100_LF_BMT	Non-Residential with Load Factor between 80 – 100%.	Non-residential, demand metered customers with 0.80 <= Avg LF <= .100.
ETR_NMLIGHT_BMT	Non-metered lighting customers	All customers with non-metered night lights installed
ETR_NMFLAT_BMT	Non-metered non-lighting customers	All customers with non-metered loads other than night lights (i.e. signal lights)

## Summary of Selection of SAIC for IT Services

external information technology outsourcing consulting firm, Technology Partners, Inc. ("TPI"), to complete a strategic initiative, Technology Alliance Program, to evaluate alternative business models to meet Entergy's business needs while strengthening the company's financial position. Attachment I provides an overview of the imitative and Attachment II provides a timeline of key activities. In 1998, Entergy Services, Inc. ("ESI"), on behalf of ESI and its affiliates, contracted with an

chose to establish partnerships to increase their ability to fully respond to Entergy's needs. The three partnerships established were: Andersen/IBM/AT&T; CSC/SAIC; and EDS/Sapient/BellSouth. A request for proposals ("RFP") was then prepared and sent to these three partnerships. Attachment III In July 1998 ESI, with input from TPI, selected eleven top outsourcing suppliers to receive a formal provides a summary view of the suppliers who participated in the RFI, and Attachment IV provides services including application development and support. Based on the sufficiency of the responses consideration: Andersen, CSC, EDS, IBM, and SAIC. Subsequent to this analysis, the vendors request for information ("RFI") to outsource the majority of its information technology ("IT") from the eleven candidates, ESI selected the following five suppliers for further analysis and profiles of the suppliers who responded to the RFI.

cultural, and technical capabilities. Based on these criteria, the CSC/SAIC partnership was chosen to proceed to the due diligence stage. During due diligence, CSC removed itself from consideration due to contractual constraints, and SAIC was selected to be the primary service provider. In October 1999, SAIC was awarded a five-year contract for the majority of IT services. A number of Entergy The partnership-based vendor proposals in response to the RFP were evaluated based on costs, IT professionals were offered employment by and accepted employment with SAIC.

the most experience with existing systems, SAIC was selected to be one of the primary providers for the IT services needed for ROA. Based on the competitive bid process, these costs are considered to SAIC's bid award coincided with the start of the systems development work required for retail open ncluding application development and support, and because SAIC had retained personnel who had access ("ROA"). Because Entergy had just completed the competitive bid process for IT services,

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### Attachment I - TAP Background

• Project Initiation: the Technology Alliance Project (TAP) was kicked off July, 1998

• Project Purpose: to strengthen the company's financial position and serve the urgent needs of our customers • Project Mission: to evaluate alternative business models to meet IT's commitment to Entergy's business needs

### • Objectives:

-More rapid response to customer's needs

-A more flexible and effective organization and cost structure

-World Class capability

-Unconstrained by lack of resources

-Best career and development opportunities for employees

-Smooth transition



## Attachment II - Process Steps and Timeline

RFI to the 11 suppliers for a high level description of Entergy's Strategic Direction and the IT environment

Suppliers responded with High-Level Solution to RFI August 10

Six suppliers presented their solution/strategy to management August 18-24

Sept 4 Down selected to five suppliers. Suppliers independently form 3 world teams

class

**Sept 15** RFP to the 3 world class teams

Suppliers responded to the RFP

Oct 30

Entergy provided Suppliers the emphasis on reduced costs and feedback on Nov 18-20

the responses

Andersen team and CSC team presented their latest proposals **Dec 1-2** 

EDS team presented a response to the new objective and the accelerated

scuedale

Dec 9

**Dec 14** 

557

TAP Update Delivered to Executive Management

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### Attachment III – All Participants

11 Suppliers Were To Receive The Selected RFI:

Selected To Deliver 6 Suppliers Were On-Site Vendor Presentations: Qualification

3 Teams Emerged to Respond to the RFP

- Andersen Consulting
  - AT&T Solutions
- Cap Gemini
- EDS
- Ernst & Young IBM Global Services
  - - Lockheed/Martin
      - SAIC
- MCI Systemhouse

- Andersen
- **EDS**

CSC

- **IBM**
- MCI/SystemHouse
- SAIC

Andersen/IBM/AT&T

CSC/SAIC

EDS/Sapient/BellSouth

# Attachment IV - Profile of RFP Participants

				The state of the s	
	CSC	SAIC	Andersen Consulting	IBM	EDS
Global	700 worldwide	150 worldwide	6,000 clients in 46	33,000 customer	45 worldwide
Presence	locations	locations	countries.	enterprises in over 100 countries.	locations
Key Strengths	Account	Utilities Industry	Management	World class	Reshape
	Management	Services	Consulting Utility	Hardware	Economics
	IT Outsourcing	Telecom		Largest IT Provider	Develop new
	i	(Bellcore)			products and
	Systems	F-1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7			services
	Integration	Service Delivery			Strengthen
					Customer
Size	More than \$6.6	More than \$4	More than \$6.6	More than \$25.7	More than \$15
	billion in revenue	billion in revenue	billion in revenue	billion in revenue	billion in revenue
Employees	More than 45,000	More than 35,000	More than 13,700	More than 110,000	More than
	employees	employees	employees	employees	000,011
				worldwide	employees
Representative	Entergy	Edison	Baltimore G&E	PG&E Energy	IES Industries
Utility	Southern New	International	B.C. Gas	Scottish Power	PECO Energy
Industry	England	Florida P&L	Duke Energy		Texas Utilities
Clients	Telephone	Duke Power	Florida Power Co		Washington Water
	United	AEP	ISO New England		Power
	Illuminating		National Power		LG&E Energy
	Cinergy		Niagara Mohawk		Pennsylvania P&
			Northern States		
			Power		
Major	J.P. Morgan	British Petroleum	Dow Chemical	Monsanto	Bank of Australia
Outsourcing	DuPont	Petroleum de Ven.	DuPont	Ryder	Continental
Clients	General	Cancer Institute	Freeport-McMoRan	Walgreens	Airlines
	Dynamics		London Stock Exch	Mercedes-Benz US	Rolls-Royce plc
			Kyder		



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### Market Mechanics Request for Proposal EHP00232

**April 14, 2000** 

Statement of Confidentiality

The information contained in this document is confidential to Entergy Services, Inc. It may not be disclosed, duplicated, or used for any purpose, in whole or in part, without the prior written consent of Entergy Services, Inc.

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### 1. Introduction

Entergy Corporation (Entergy) is one of the largest investor owned public utility holding companies, and the leading electric energy supplier in the middle south region of the United States. Entergy Corporation serves approximately 2.5 million customers in a service area located in portions of Arkansas, Louisiana, Mississippi, and Texas. In addition to the distribution of electricity, Entergy owns, operates, and maintains natural gas distribution systems in New Orleans and Baton Rouge.

The intent of this RFP is to purchase third party products and or services to provide an enterprise Market Mechanics solution that will allow Entergy to meet Open Access mandates allowing functional unbundling of services and the interface and operation of multiple competitive Generation and Retail entities with the regulated Distribution and Transmission entities. Entergy will also consider outsourcing proposals that will address the needs of the Retail and Distribution operations of Entergy for Market Mechanics systems.

### 1.1. Overview

Entergy's current operations in Texas, Entergy Gulf States, Inc. – Texas (EGSI – TX) must be ready for Retail Open Access (ROA) by June 1, 2001. The Texas Senate Bill 7 requires all electric utilities operating in the state to open their territories for full competition on January 1, 2002. A Pilot competition consisting of five percent of all customer classes begins on June 1, 2001. Similarly, Entergy's current operations in Arkansas, Entergy Arkansas, Inc. (EAI) must follow the deregulation timetable mandated by Arkansas House Bill 1556, and open their territories for competition on January 1, 2002. The Arkansas Bill does not require a competition Pilot. In addition, Louisiana Public Service Commission (LPSC) does not require legislation to enact ROA impacting Entergy's Louisiana operations, Entergy Louisiana, Inc. (ELI) and Entergy Gulf States -Louisiana (EGSI – LA). If the LPSC determines that ROA is in the public interest, they may enact Retail Open Access in 2002 to 2003 timeframe. ROA activities for Entergy's New Orleans operations, Entergy New Orleans, Inc. (ENOI) and its Mississippi operations, Entergy Mississippi, Inc. (EMI) are not expected in the near future. In order to prepare for open access, Entergy has started an enterprise wide project, called Transition to Competition (TTC) initiative. Market Mechanics is an integral part of the TTC initiative. It is the business-to-business (B2B) processes and systems necessary for the Entergy's Retail and Distribution operations to interact with customers and other market participants in Texas (TX) and Arkansas (AR), and possibly, in Louisiana (LA). Figure 1.1.1., 1.1.2. and 1.1.3. reflect the anticipated market mechanics process flows in the ERCOT region of Texas, non-ERCOT region of Texas and Arkansas respectively based on the current available market rules. Figure 1.1.4. reflects Entergy's position of "preferred" market mechanics process flows in Louisiana.

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### 1.1.1. Definition

The main components of the Market Mechanics are:

- Front End Operations consisting of:
  - Registration is the process to facilitate customer enrollment and switching, and to ensure that Retail Electric Providers (REPs)/Electric Service Providers (ESPs) have customer data for the deregulated market operations. It is also a repository of customer data to support data aggregation, load profiling, scheduling and settlement functions.
  - Support Open Market refers to the activities the current Distribution Company may be required to perform to facilitate market opening. These activities include certifying data exchange systems of REP/ESP, maintaining a list of REP/ESPs qualified and licensed to do business in the state, etc.
  - Pre-Enrollment is the process to jump start the market, i.e., notify customers of opportunity to enroll, and track their choices, and maintain a database for qualified REPs/ESPs to access (with customer approval). The database should contain customer data sufficient to calculate a comparison bill and to enroll the customer should he/she desire to switch suppliers (REP/ESPs).
- **Load Profiling** is the process used to develop the consumption pattern of a group of customers, developed from sample data, that show the demand variation on an hourly or sub-hourly basis.
- Data Aggregation is the front-end to the Settlements process and is the process of receiving interval and non-interval meter consumption data, applying appropriate load profiles to the meter data, and finally calculating aggregated hourly (or subhourly) consumption data by REP/ESPs and settlement zones (or, possibly nodes).
- Forecasting is the process of projecting load on an hourly basis for the next day and on a week forward basis for use as inputs to bilateral contract arrangements and for development of schedules to ensure availability of adequate generation resources to meet the demand.
- Scheduling is the process of submitting a schedule of generation corresponding to the load forecast.
- <u>Settlements:</u> is the process of accounting for and equitably assigning the kWh, costs and payments of generation, transmission, distribution and system operations to the appropriate market participants.

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### 1.1.2. Scope and Impacts of Market Mechanics

Entergy RetailCo plans to operate under several RTO/ISOs. These RTO/ISOs include Entergy TransCo operating in the SERC region, Electricity Reliability Council of Texas (ERCOT) in Texas, and Southwest Power Pool (SPP) in Arkansas and parts of Texas. The projected impacts of the Market mechanics functions on the operations of Entergy RetailCo, Entergy DisCos, and RTO/ISO are as follows:

### Registration

- Entergy DisCo: In Texas, the Registration System will be a "centralized-hybrid" model with a thin central database to support switching, dropping and other market transactions, and a thick customer/premise-defined database housed in each distribution company. Arkansas' Market Open model will be a distributed one that requires each DisCo to house the total database, and perform all registration and database management functions. The goal for the Market Steady State model in both AR and TX will be a completely centralized registration database supporting the market. For market opening AR will probably require installation of a new registration system in the DisCo, whereas TX requires Entergy DisCo to create interfaces to the centralized system and provide detail customer data to REPs.
- Entergy RetailCo must interface with the centralized system in TX and all distribution company systems in AR. Entergy RetailCo must develop a new operational structure that interfaces with the Registration entities and integrates their customer acquisition, service initiation and transaction monitoring systems with the registration functions.

### Pre-Enrollment/Support Open Market

Entergy DisCo: Current assumptions are that the Arkansas Public Service Commission (APSC) and the Public Utilities Commission of Texas (PUCT) will require the Entergy DisCos to support and fund Pre-Enrollment activities. Pre-Enrollment will be limited to two years with quarterly updates and will require the Entergy DisCo to maintain databases with easy REP/ESP access, provide a positive check-off for customer choice, and deliver registration opportunity notifications to mass and middle market (residential and small commercial) customers only. Following the Pre-Enrollment period Entergy DisCo will be required to maintain specified customer data in a database (Internet access option or EDI/FTP) when customers request (or authorize REP/ESP to obtain) such information. Support Open Market operations will necessitate the DisCos to create and administer training programs to facilitate new REPs/ESPs interface with the DisCos' systems and data exchange.

### Load Profiling

 Entergy DisCo will have primary responsibility for developing load profiles in AR and TX. Entergy DisCo will be required to design samples for profiling purposes utilizing appropriate methodologies (with oversight from the APSC and

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- PUCT). The Entergy DisCo will oversee installation of interval data recorders for samples, create periodic load profiles for appropriate classes and publish the profile data on the Internet for use by REP/ESPs.
- Entergy RetailCo must be able to obtain and use profile information to develop pricing models and accurate load forecasts for mass and middle market customers.

### Data Aggregation

- Entergy DisCo will have primary responsibility to accumulate monthly and interval consumption data, apply load profiles to the monthly data, apply distribution losses, aggregate the data by REP/ESP and zone (and possibly, node), and then, forward the aggregated hourly consumption data to RTO/ISO for use in its settlement activities. This functionality must be available for the Texas pilot beginning in June, 2001, and for market opening in Arkansas and Texas on January 1, 2002.
- RTO/ISO will use the aggregate hourly usage data as an input to its Settlements system.

### Forecasting

- Entergy RetailCo will have primary responsibility to create hourly forecasts of load demands for all its customers and forward overall forecast to the appropriate RTO /ISO. The RetailCo may follow separate processes to create load demand forecasts for its mass and middle market (residential and small-to-medium commercial and industrial) customers and its large C&I (commercial and industrial) customers in both AR and TX.
- RTO/ISO will be responsible for developing a top down hourly load forecast for each Transmission Zone within the its jurisdiction. The RTO/ISO will use the forecasts and schedules from Entergy RetailCo and other REP's or Qualified Scheduling Entities (QSE) to aggregate hourly demand for each transmission zone. The RTO/ISO will compare the top down forecast with the aggregated submitted forecasts, and develop a forecast for Energy Imbalances and Ancillary Services.

### Scheduling

- Entergy RetailCo will have primary responsibility to schedule the load requirements for its customers, and forward the load schedules to the appropriate RTO/ISO. The RetailCo may also offer its services as a QSE (Qualified Scheduling Entity) across the system to municipalities, cooperatives and other small market participants.
- RTO/ISO will compare submitted forecasts with the submitted schedules from Entergy RetailCo, other market participants and GenCos to determine whether to accept or reject each submitted schedule. The RTO/ISO will also schedule and

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purchase ancillary services to balance actual system demands with actual generation and to insure system reliability.

### Settlements:

- RTO/ISO will have primary responsibility for the financial settlement of the market. In order to accomplish this, the RTO/ISO will determine actual hourly MW for control area (load & generation), determine actual hourly costs of energy & ancillary services, apply transmission losses as required, calculate residuals and allocate appropriately to REPs/ESPs, compare actual to forecast load and calculate imbalances, determine settlements based on bilateral contracts and ancillary service charges, perform financial deal/settlements, and validate or true-up settlement charges among market participants. RTO/ISO will also act as the main point of contact for dispute resolution activities among market participants.
- Entergy RetailCo will be responsible for settling bilateral contracts with GenCos and perform "shadow" settlements function to verify and pay RTO/ISO generated charges.

### 1.1.3. Key Dates for Market Mechanics

- <u>6/16/00:</u> Entergy Selects Vendor.
- 7/31/00: Complete Business Process Flow Design
- 8/1/00: Start detail design
- 9/1/00: Start configure/Code/Test process
- 2/28/01: Complete Configure/Code/Unit test process for Texas Pilot
- 4/15/01: Start External Readiness Test for Texas Pilot
- 4/30/01: Complete Internal Readiness Test for Texas Pilot
- 6/1/01: Texas Pilot Begins
- 8/31/01: Complete Configure/Code/Unit test for Texas and Arkansas Full Access
- 10/15/01: Start External Readiness Test for Texas and Arkansas Full Access
- 10/30/01: Complete Internal Readiness Test for Texas Pilot
- 1/1/02: Texas and Arkansas Full Access Begins

### 1.2. Vendor Responses

This Request for Proposal (RFP) has been developed to solicit proposals for a Market Mechanics subsystem package for Entergy. The RFP document is comprehensive in terms of the implied functional requirements for this system. It is recognized that Bidders may not have existing software offerings that meet all of the requirements. It is intended that the Bidders will assimilate a complete solution agreements to complete the system requirements. The successful bidder will manage all subcontractors under the direction of an Entergy Program Manager.

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This RFP is soliciting responses to each of the following sections to support the Texas Pilot, and Texas and Arkansas full access market:

- Section 2 Distribution Systems
- Section 3 Retail Systems
- Section 4 Data Transport and Transaction Management

Each response for each section will contain a provision for three scenarios:

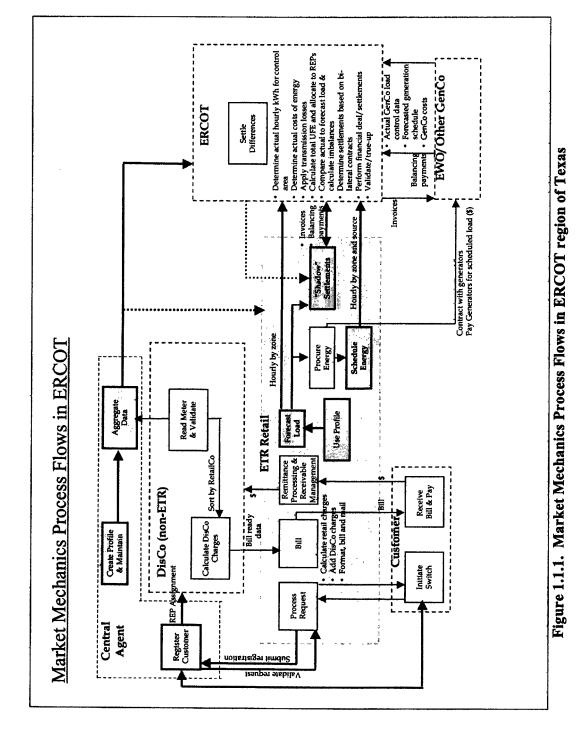
- Option 1. <u>Complete Outsourcing</u>: designing, testing, and building the systems for commercial operations to include mapping to Entergy legacy systems and operating the systems on a day-to-day basis, including hosting of the application and providing technical and business services;
- Option 2. Partial Outsourcing: designing, testing, and building the systems for commercial operations to include mapping to Entergy legacy systems and operating the systems on a day-to-day basis, including hosting of the application and providing technical services; and
- Option 3. <u>Insourcing</u>: designing, testing, building, installing and maintaining the systems for commercial operations to include mapping to Entergy legacy systems and training of Entergy staff to host and support the system technical and operationally. For this option, the cost should be provided for each of the insourcing components.

The proposed solutions should be scalable for Louisiana, New Orleans, and the Mississippi jurisdictions. Entergy may desire to partner with other utilities to offer a statewide centralized market mechanics clearinghouse, in particular, for registration, load profiling and data aggregation functions. The proposed solutions should be portable to such an organization. The clearinghouse operation may also be extended to Louisiana and Mississippi when those states mandate retail open access market. Vendors are requested to provide Entergy with road maps and appropriate options and cost savings, if any, for such an eventuality. Entergy Services, Inc is receptive to and encourages alternate proposals from the Bidder after the Bidder has first submitted a proposal in full accordance with the specifications as furnished by Entergy Services, Inc.

Detailed instructions for responding to this RFP can be found in Section 6.0 – Instructions to Bidders.

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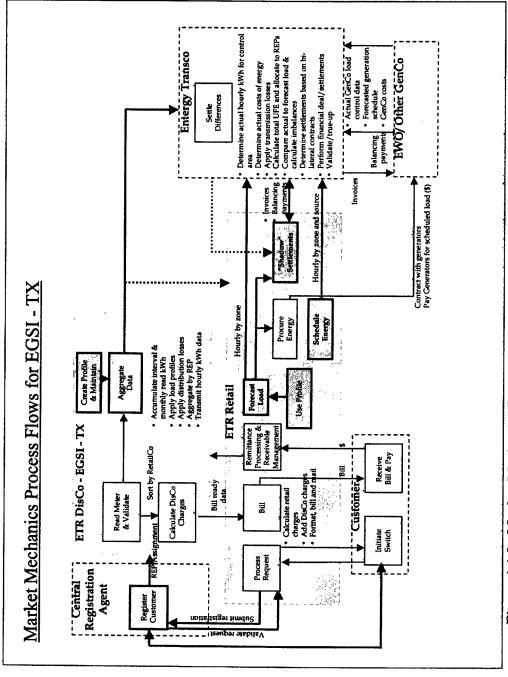
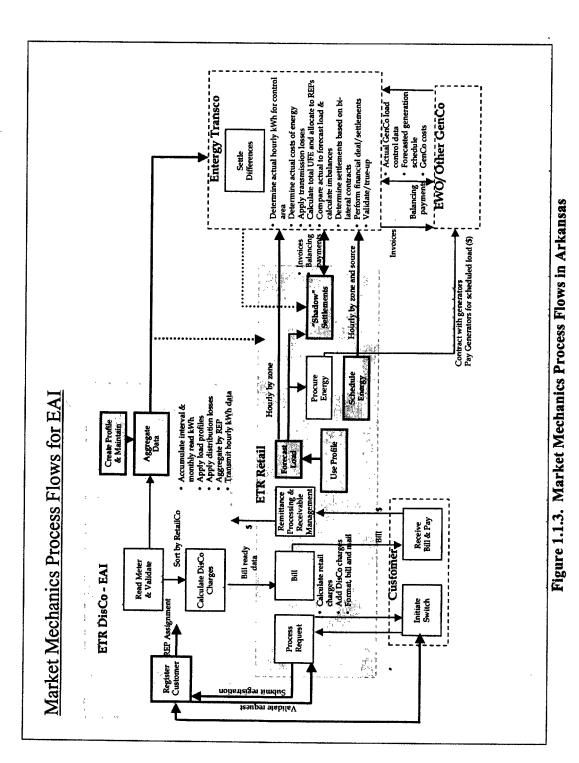


Figure 1.1.2. Market Mechanics Process Flows in non-ERCOT region of Texas

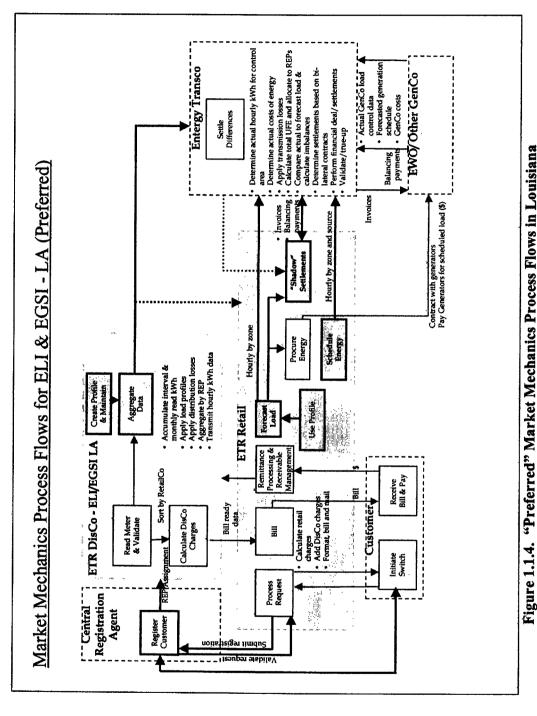
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### 2. DISTRIBUTION SYSTEMS

### 2.1. Market Mechanics Front End Operations

The Front End Operations for Market Mechanics represents three functional areas – Support Open Market, Pre-Enrollment & Customer Information, and Registration (collectively referred to as Registration). The first two areas are primarily focused upon market opening support with the exception of Customer Information. Registration is an ongoing operation. Table 2.1. reflects the customer populations and expected transactions for each of the operational processes. The operational functions are defined below along with their high-level business requirements.

Table 2.1. Entergy's jurisdictions, pilot and market opening dates, current customer populations, and anticipated switching rate.

	Cipated Switch	Pilot	Pilot			Anticipated	Number of
Entergy	Pilot	Start	No. of	Market	No. of	Switching	Market
Jurisdictions	Required	Dates	Customers	Opening	Customers*	Rates	Participants**
Texas	Y	June 2001	18,000	Jan. 2002	350,000	16%	20
Arkansas	N	N/A	-	Jan. 2002	650,000	16%	16
Louisiana	-	-	-	2002 or 2003	1,000,000	-	-
Mississippi	-	-	-	_	375,000	-	-
New Orleans	-	-	-	-	200,000	-	-

<sup>\*</sup> Estimated number of customers on January 1, 2002

### 2.1.1. Support Open Market

Support Open Market is Entergy's terminology describing the business requirements necessary to orient market participants to the Entergy DisCo's requirements including communications protocols and processes and test/certify their ability to exchange information. Figure 2.1.1. and 2.1.2. depict the swim lane diagrams for the Support Open Market activities for Entergy DisCo and RetailCo at the market opening state and market steady state respectively.

### Key Functions

- 2.1.1.1. Identify Market Participant Interfaces and Requirements. The primary interfaces between the DisCo and Market Participants are identified and information transfer protocols established.
  - Determine the specific types of interfaces Market Participants will need to open market.

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<sup>\*\*</sup> Market Participants are Retail Energy Providers (TX) or Energy Service Providers (AR)

 Initiate series of acceptable protocols for exchanging data based on Market Participants needs.

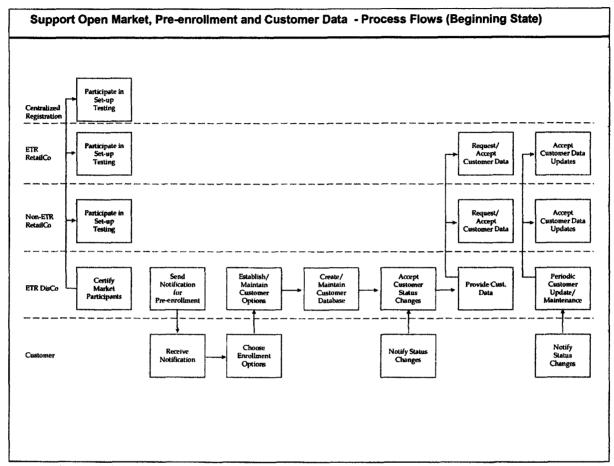


Figure 2.1.1. Support Open Market, Pre-Enrollment processes at Market Open

- 2.1.1.2. Develop Testing/Certification Process and Certify Market Participants.

  Establish data transfer standards and a series of scenarios and data transfer tests to ensure that information can be exchanged accurately in order to certify Market Participants.
  - Establish certification standards, criteria and tests to examine readiness.
  - Create series of scenarios based upon anticipated information requests and data exchanges.
  - Publish certification process and interact with market participants about the process (preferably through an Internet portal).
  - Formulate orientation materials.
  - Train Market Participants in proper protocols for data exchange.
  - Test Market Participants and issue certification, as required.

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- 2.1.1.3. Create Problem Resolution Process. Establish process to handle objections that may arise during data exchange and timing.
  - Anticipate possible problems and required resolutions.
  - Establish process for handling complaints and non-routine errors.

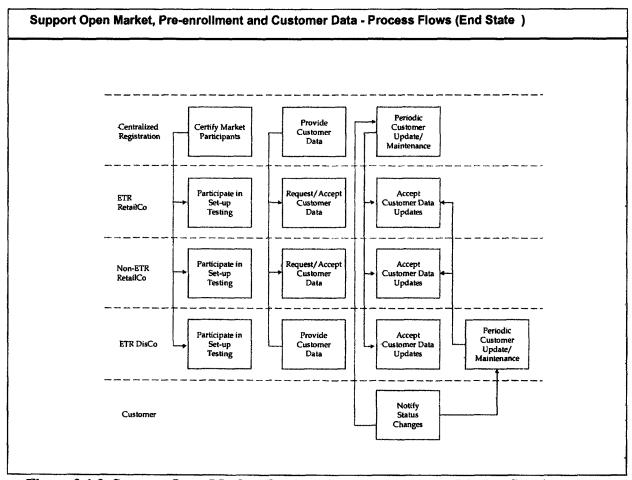


Figure 2.1.2. Support Open Market, Pre-Enrollment processes at Market Steady state

### 2.1.2. Pre-Enrollment & Customer Information

Pre-Enrollment & Customer Information represent support functions for opening the market and continued operations. Pre-Enrollment pertains to the process of "kick-starting" the market. It is anticipated that each regulatory authority will require the DisCo to stimulate the market through a customer notification and invitation to participate process. This invitation will take the form of a market opening notification letter accompanied by a packet of customer educational materials and a customer election to have their specific information provided to Market Participants licensed by the appropriate state. For mass customers (i.e., residential and small business) who authorize release of their data, a mass customer database will be created that permits access by licensed Market Participants. Customer Information is the provision of specific customer data to Market Participants upon receipt of a valid request from the Market Participant or

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the customer. This process will be available upon market opening and in subsequent years. Figure 2.1.1. and 2.1.2. depict the swim lane diagrams for the Pre-Enrollment activities for Entergy DisCo and RetailCo at the market opening state and market steady state respectively.

Texas has legislated a pilot program. Arkansas will not have a pilot program. Pilot Pre-Enrollment processes will be dependent upon Texas. Five percent of the load in each class is eligible for participation in Texas. The Pre-Enrollment process must address notification, qualification and selection of participants in the Texas and subsequent state pilots. The pilot rules may require the design, implementation and execution of a lottery system if the pilot is over-subscribed (more customers want to participate in the pilot than mandated by the legislation or Commission rules), notification of customers of their selection or rejection in the lottery, and keeping track of rejected customers for participating in future open slots.

### Key Functions

- 2.1.2.1. Send Customer Notification for Pre-Enrollment and/or Pilot. Customers within a class will be sent notification and invitations to participate in pilot (Texas) or customer choice market opening (Arkansas).
  - Create database of eligible customers for open access. Populate database with required information for notification.
  - Create database of eligible customers for pilot process. Populate database with required information for notification.
  - Develop notification process and tie with customer education requirements from the state/PUCT/APSC.
  - Develop means for customers to respond (e.g., VRU, return postcard, Internet, etc.).
  - Develop means to automate updates of customer elections and to allow status changes.
- 2.1.2.2. Establish and Maintain Customer Options. Data tables and tracking system must be established to manage pilot notification, opt-in status, customer selection to participate, customer ceases to participate and other characteristics.
  - Determine possible customer options, most likely alternatives and efficient means to capture in database. Capture REP/ESP data transfers.
  - Formulate processes to maintain customer choices on participation with audit trail.
  - Produce regulatory and management reports.
- 2.1.2.3. Create/Maintain Pre-Defined Customer Database and Provide Access. State licensed (APSC/PUCT) Market Participants, upon regulatory mandate, must be provided access to information for customers who have elected to participate.

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- Develop database specification for pilot and Pre-Enrollment information requirements. (PUCT/APSC will establish rules for the type of data that can be released.)
- Devise database maintenance processes and timing. Initiate updates per specifications.
- 2.1.2.4. Investigate cost-effective database delivery mechanisms to efficiently provide REP/ESPs with customer pre-market opening and post market opening data in expedient manor. (Consider Internet database updated each evening that REP/ESPs can access with password and/or record key and low-end alternative methods for small Market Participants.)
- 2.1.2.5. Maintain Currency of Data and Customer Participation. Customers can elect to remove themselves from the pilot or Pre-Enrollment mass customer list.
  - Devise method for customers to notify Centralized Registration Agent or DisCo (as applicable) of change in election (opt out of mass marketing database or pilot participation).
  - Accept customer status changes.
  - Update applicable databases automatically and establish audit trail.
- 2.1.2.6. Provide REP/ESPs Customer Information. As an ongoing process customers or their REP/ESPs will request customer data (interval meter data, billing determinants, service address, meter type and owner, etc.) so that the REP/ESP can create a comparative analysis and invoice for supplier services. Provisions to obtain, store (as necessary) and transmit data to requesting party are required.
  - Establish processes that customers or REP/ESP can request customer information and the means to validate authenticity of requestor and request.
  - Devise data delivery formats per delivery/communications protocols.
  - Formulate process to query database(s) and provide required information to requestor.
  - If REP/ESP requests information, provide customer notification that data requested and delivered.
- 2.1.2.7. Create Problem Resolution Process. Establish process to handle objections that may arise during data exchange and timing.
  - Anticipate possible problems and required resolutions.
  - Establish process for handling complaints and non-routine errors.

### 2.1.3. Registration

Registration is the process to facilitate customer enrollment and switching, and to ensure that REP/ESPs have customer data for the deregulated market operations. It is also a repository of customer data to support load profiling, data aggregation, scheduling and settlement functions. A primary requirement of the Registration database is to identify the REP/ESP serving a specific delivery point at any point in time. The Registration

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system design must allow for multiple REP/ESPs serving a customer, and maintaining a historical relationship with the REP/ESP. Figure 2.1.3. depicts the swim lane diagram for the Registration activities for Entergy DisCo and RetailCo. ERCOT will operate the Centralized Registration agent for all electric utilities in Texas (both ERCOT and non-ERCOT) and Entergy DisCo will be responsible for Registration activities for its territory in Arkansas.

### Key Functions

- 2.1.3.1. Receive and Validate Enrollment and Switching Requests. REP/ESPs transmit customer enrollment or switching requests to the registration agent. The agent must validate the request and initiate a series of actions.
  - Establish internal processes to identify Standard Electronic Transaction (SET) sender, sender authenticity and state license validity, and transaction purpose.
  - Identify potential for frequent errors (e.g., coding errors by REPs/ESPs) and quick resolution processes.
  - Determine validity of request (from transaction request/sender and customer eligibility).
  - Create automated processes to address each category of enrollment and switching request (e.g., from REP/ESP to REP/ESP, REP/ESP to Default/PoLR, etc.)
  - Establish data requirements for each enrollment and switching transaction and associated transaction data mapping.
  - Develop premise Id concept and initialize in Customer Care system.
- 2.1.3.2. Notify Affected Parties of Enrollment/Switch. Upon receipt of a valid enrollment/switch request the registration agent notifies sending REP/ESP, losing REP/ESP or default provider, DisCo and customer. Customer's notification is to prevent slamming.
  - Develop table of transaction type, notification rules, stakeholder parties and communication process.
  - Create process to automatically notify stakeholders by appropriate communication means.
  - Maintain interdependency of customer enrollment/switching and notification processes.
  - Create appropriate audit trail with tracking and reporting capability.

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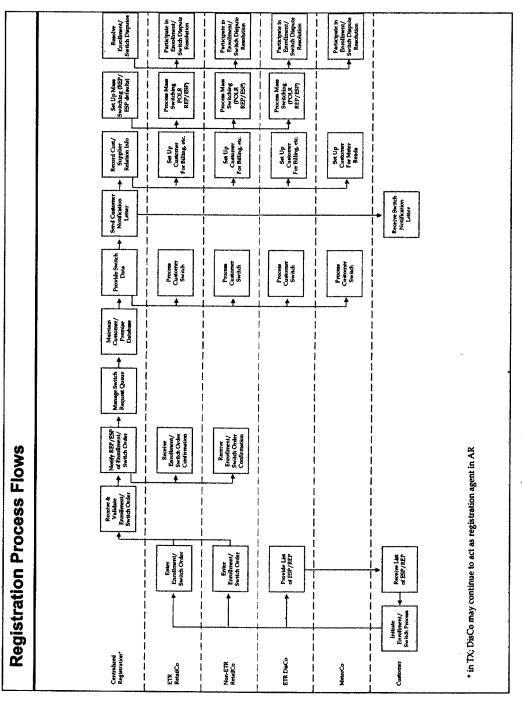


Figure 2.1.3. Registration Process Flows

- 2.1.3.3. Manage REP/ESP Request Queue. Texas process requires a queue be established should several enrollment/switching requests be received. The first valid enrollment/switch is accepted and others are notified.
  - Develop process to hold in a queue each registration request for each unique ESI-ID during specific time cycle.
  - Devise process to notify unsuccessful REP/ESPs once first valid enrollment or switch is completed.
  - Purge queue at end of time cycle upon successful customer switch.
- 2.1.3.4. Maintain Customer/Premise-Defined Database and Provide to Authorized Participants. The Registration process requires that specific information be maintained to facilitate validation of enrollment/switch request, delivery of information to new REP/ESP, load profiling, data aggregation, scheduling and settlement. This is a DisCo function in both Texas and Arkansas.
  - Define data requirements for each enrollment and switching transaction.
  - Develop database to support transactions and define data maintenance and update requirements.
  - Establish automated processes to link transaction requirements with data query to fulfill transaction request.
  - Provide "Look-up" table for REP to retrieve appropriate level of customer premise data to process orders.
- 2.1.3.5. Set-Up Customer (Initial Billing Parameters, etc.). Once a Market Participant's enrollment request is validated both the DisCo and Market Participant must establish service (i.e., service initiation) for customer. (Note: Texas DisCo may not require this process.)
  - Link Energy Service Identifier ID (ESI-ID) with customer ID and account number. ESI-ID will uniquely identify each service delivery point in Entergy's territory.
  - Determine whether Texas DisCo desires separate tracking of individual customers that are handled by a REP.
  - Tie process in with the existing service initiation process.
- 2.1.3.6. Handle Mass Switches in Provider Exit Situations. The ability to accommodate transfer of large blocks of customers in case of REP/ESP market exit, market segment exit or catastrophic event must be provided.
  - Examine requirements and high-risk elements for switching large blocks of a Market Participant's customers over to PoLR or default service.
  - Formulate processes to facilitate mass customer switch and alleviate bottlenecks.
- 2.1.3.7. Handle Dispute Resolution. Establish processes required to address primary contentious areas in providing customer information and registration functions and a process to handle objections that may arise during data exchange, timing and settlement.
  - Identify key areas where Market Participant and Customer disputes will be generated. Assign priority and risk to each.

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- Develop processes to resolve disputes in high priority areas.
- Support re-settlement of wholesale market.
- Refine dispute resolution process following first year with check and adjust.
- Anticipate possible problems and required resolutions.
- Establish process for handling complaints and non-routine errors.
- 2.1.3.8. Maintain Audit Trails. To support dispute resolutions for registration, data aggregation and settlements, audit information must be identified and maintained.
  - Develop information requirements to support process audits.
  - Identify critical touch points and create internal validity checks to insure system maintains integrity.

### 2.1.4. Key Assumptions

### **General**

- State jurisdictions will grow at the rate of 2% per annum.
- All state jurisdictions will require pre-enrollment initiatives including customer notification of market opening, solicitation to participate in mass marketing list, maintenance of list for two-year period. Maintenance will include six-month notification to customer that they are still participating.
- All states except Texas will allow Entergy to operate a company-wide centralized registration system.
- Entergy will utilize a unique Energy Service Identifier ID (ESI-ID) to uniquely identify each service delivery point. Texas requires this approach and uses the ESI-ID in verifying customer enrollment and switching requests. Entergy Arkansas, Louisiana, Mississippi and New Orleans will establish rules that are flexible to permit the use of such an identifier.

### Texas

- Texas will initiate pilot on legislated date and require systems operational at that time. Pre-Enrollment process must be operational at least two months prior to pilot opening.
- ERCOT will operate a centralized registration system and require the DisCo to support it with customer information database that communicates with Market Participants.
- Centralized registration agent will verify that Market Participants are licensed and approved to operate in the state before sending enrollment/switching/drop requests to DisCo to execute.
- The PUCT will maintain status of each REP's license and provide an on line reference database which the Centralized Registration Agent can access to determine the REP's ability to service each customer class.
- Customers and Market Participants must be notified by the Centralized Registration Agent of enrollments, switching requests, and switching to default suppliers/PoLR. Customers must be sent notification letter or other means designated by PUCT.

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• Texas will support pre-enrollment initial solicitation of customer participation through the system benefit fund. DisCo will be responsible for creating information repository, tracking customer changes and status, etc.

### <u>Arkansas</u>

- Entergy Arkansas DisCo will operate centralized registration for Entergy's Arkansas customers and be able to expand into Louisiana, Mississippi and New Orleans as these markets open.
- Entergy Arkansas DisCo must perform all functions of a centralized registration agent and DisCo (information repository and exchange with Market Participants).
   Customers must be notified by DisCo of switches and date of switch. Support staff must respond to customer inquiries regarding switching.
- Entergy Arkansas will be responsible for disseminating (and possible development costs) associated with pre-enrollment notification, solicitation and customer information.
- The APSC will maintain status of each REP's license and provide an on line reference database which the Centralized Registration Agent can access to determine the REP's ability to service each customer class.

### Competitive Retail Operations

- Texas pilot requires RetailCo to operate outside of Entergy's service area.
   RetailCo must develop interfaces (EDI, XLM, Internet or other specifications) with target area distribution companies and with the Texas Centralized Registration system.
- RetailCo will acquire an integrated package for market operations that includes capabilities for customer information handling, analysis and tracking. Market Mechanics will provide consultation regarding registration system functionality and requirements.
- RetailCo will utilize the SAP/CCS system currently being implemented at Entergy.

### 2.2. Load Profiling

### 2.2.1. Background

Load Profiling is defined as the process to develop the average consumption pattern of a group of customers, developed from sample data, that show the demand variation on an hourly basis.

Current traditional, regulated load research is conducted by Entergy and is expected to be used as the basis for profiling at market opening. On an on-going basis, there will be need for maintenance of the existing samples, development of profiles, evaluation of appropriateness of sample to populations, and periodic new profile sampling. Further, for market opening Entergy is seeking assistance in the assessment of current load research for appropriateness for market opening profiles as well as converting the existing load research information into viable profiles for retailer's use and data aggregation/settlement

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purposes. Figure 2.2.1. depicts the swim lane diagram for the Load Profiling activities for Entergy DisCo.

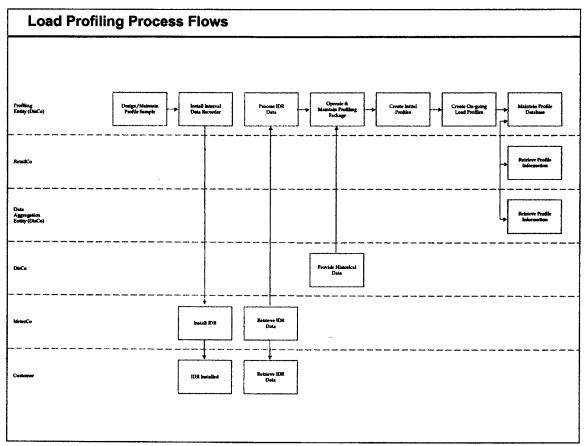


Figure 2.2.1. Load Profiling Process Flows

The Adjusted Static Load Profile process has been identified as the profiling methodology in Texas and Arkansas (Louisiana and Mississippi may require different methodologies under their ROA rules). The Load Profiling function will provide the static load profiles for appropriate classes with an adjustment made during the Data Aggregation process to reflect appropriate weather conditions and/or other specific characteristics of the target time period. Data Aggregation is addressed in a subsequent part of the RFP.

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The following table depicts, for Entergy's jurisdictions, the current amount of load data and populations along with expected retail open access opening dates:

Entergy Jurisdictions	Pilot Required	Pilot Start	Market Opening	# of Customers**	# Regulated Rate Classes*	# Sample Points
Texas	Y	6/2001	1/2002	352,000	4	855
Arkansas	N	N/A	1/2002	663,000	5	1,043
Louisiana	-	-	2002 or 2003	999,000	5	680
Mississippi	-	-	-	409,000	7	1,026
New Orleans	- 1	-	_	198,000	4	573

<sup>\*</sup> Current number of rate classes available through regulated load research.

### 2.2.2. Key Functions

- 2.2.2.1. Profile Sample Design/Maintenance. Options are solicited to apply jurisdictional PUC- approved profiling sampling techniques for development of new or updated load profiles classes in a timely and cost-effective manner. As noted above, it is expected that current load data will be used for pilots and market opening with new samples to be designed at some point after market opening.
  - Design statistically representative samples for profile classes.
  - Coordinate/oversee sample interval data recorder installation.
  - Coordinate/communicate with data retrieval agency to ensure accuracy and availability of load data.
  - Select sample alternates as required.
  - Periodic evaluation of sample appropriateness for population.
- 2.2.2.2. Create Initial Static Load Profiles. An evaluation must be made of current load research class information for applicability to load profile creation and prepare static load profiles for market opening (and pilot where applicable) for all pertinent classes. The work will involve creation of profiles for unmetered services and may involve sub-segmenting existing rate classes.
  - Perform analysis to determine the correct number of static load profiles for market opening utilizing existing load research data.
  - Adjust static profiles to be representative of normal or typical weather conditions.
  - Provide profiles to market participants and a central data site (e.g. website, data warehouse).
- 2.2.2.3. On-going Profile Creation. Profiles must be developed on an on-going basis for periodic update (time frame TBD) of static load profiles for market participants.
  - Gather appropriate data (meter data, calendar information, weather information, and any other profiling determinants from appropriate sources) to create load profiles

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<sup>\*\*</sup> Estimated number of customers on January 1, 2002.

- Provide data to data aggregator and other market participants as appropriate.
- 2.2.2.4. Monitoring of Load Profile Validity. Profiles used in market must be monitored to ensure that they continue to reflect current usage.
  - Assessment for changes in customer usage patterns over time associated with lifestyle changes, electric appliance technology, and economic or other extraneous variables.
  - Assessment of profile drift sample no longer reflects population due to customers moving to interval metering
  - Assessment of sample mortality membership of sample changes for various reasons such as change of use at premise.

### 2.2.3. Key Assumptions

### General

- One load profiling system will be implemented and usable for all Entergy jurisdictions.
- Profiling and sample design methodology will be approved by public service commissions and will follow the AEIC guidelines.
- Additional profile classes may be created from existing load research rate class data. Load profiles will be developed for unmetered services.
- DisCo is responsible for providing profiles to market participants.
- Existing load research load data will be used for pilot and market opening.
- Weather normalization procedures will be consistent for creating static 'weather normalized' profiles and for the adjusted static profiles produced for settlement purposes.
- Static profiles, adjusted static profiles, distribution losses and weather normalization information will be provided to market participants by DisCo.
- Metered kWh information will be obtained from the Entergy Customer Care System (SAP/CCS) on a daily basis.
- The Entergy Registration System will be used to house profile type, settlement areas, voltage levels and other pertinent information required for profiling.

### **Texas**

- Entergy DisCo will provide profiles for the market (ERCOT centralized load profiles do not cover non-ERCOT companies).
- Entergy DisCo may contract with vendor for assistance or supply of load profiling services.

### Arkansas

- Arkansas will not institute a centralized load profiling system but allow each electric utility to provide profiles.
- Entergy DisCo will be responsible for providing load profiling to market and may contract with vendor for assistance or supply of load profiling services.

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#### 2.3. Data Aggregation

# 2.3.1. Background

Data aggregation is defined as the task of calculating and providing the Settlement Agent with hourly total loads per retailer by settlement area via the collection and processing of meter and hourly load data to ensure the accounting for all premise IDs. Data aggregation encompasses both profiled loads as well as loads captured from interval meters.

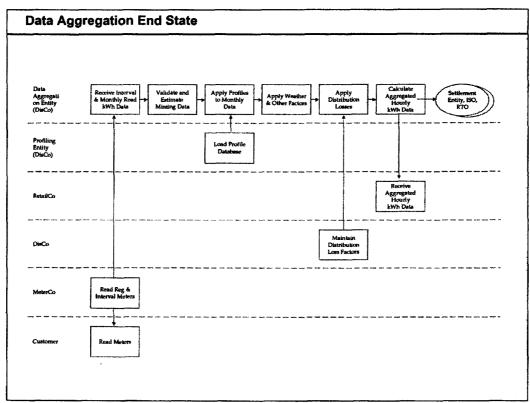


Figure 2.3.1. Data Aggregation Process Flows

Entergy is required to develop a data aggregation function to enable market settlement on an hourly interval at the retailer level. To facilitate settlement, a bottom-up calculation of end-use consumption by the retailer is necessary. This effort will include a process such as receipt of consumption data (for both interval metered and profiled customers, application of energy to load profiles, application of distribution loss factors and aggregation to determine the hourly load per retailer per settlement zone. To meet this data aggregation need, Entergy will require systems or services to perform or assist in the data aggregation function. Figure 2.3.1. depicts the swim lane diagram for the Data Aggregation activities for Entergy DisCo.

To enable dispute resolution, the Data Aggregation System must be able to store and duplicate any retailer's hourly load within a reasonable timeframe from the original creation data.

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Shown below for Entergy's jurisdictions are the estimated number of profile classes and market participants.

Entergy	Pilot	Pilot	Market	# of	# of Profile	# of Market
Jurisdictions	Required	Start	Opening	Customers*	Classes**	Participants***
Texas	Y	6/2001	1/2002	350,000	10	20
Arkansas	N	N/A	1/2002	650,000	10	16
Louisiana	-	•	2002 or 2003	1,000,000	_	•
Mississippi	-	-	-	375,000	-	-
New Orleans	-	-	_	200,000	_	-

Estimated number of customers on January 1, 2002.

## 2.3.2. Key Functions

- 2.3.2.1. Acquire data. Software systems are required to obtain and handle all data required for the data aggregation process.
  - Receive and store interval and non-interval consumption meter data for customers by retailer, settlement area, weather zone, voltage level, or other criteria.
  - Receive and store interval and profiled hourly loads.
- 2.3.2.2. Daily Weather Adjustments. Determination of current weather adjustment for each profile class on a daily basis for use by data aggregation function.
  - Provide software and analytical expertise to "weather adjust" load profiles.
  - Provide data transfer capability to hand-off weather normalized load shape to data aggregation function.
  - Maintain history of weather adjustments.
- 2.3.2.3. Application of Energy and Distribution Losses.
  - Apply meter consumption or usage factor to profiles using a defined methodology.
  - Apply appropriate distribution loss factors to profiles and interval metered data.

# 2.3.2.4. Aggregation

- Aggregate all interval metered demands to obtain an hourly demand per retailer, settlement area. (Note: interval meter & profile must be kept separate for residual (UFE) allocation purposes).
- Aggregate all hourly profiled demands to obtain an hourly demand per retailer, settlement area.

#### 2.3.2.5. Data Export.

- Electronically transfer aggregated data to RTO/ISO and market participants as appropriate.
- 2.3.2.6. Maintain Data Storage.

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<sup>\*\*</sup> Estimated number of profile classes created from regulated rate class data and unmetered services.

<sup>\*\*\*</sup> Market Participants are Retail Energy Providers (TX) or Energy Service Providers (AR).

• Archive all data (received and calculated) in a central data warehouse.

#### 2.3.2.7. Support Dispute Resolution.

• Establish processes to validate or adjust aggregated data in support of retailer issues and/or resettlement of wholesale market.

#### 2.3.3. Key Assumptions

#### **General**

- One data system will be implemented and usable for all Entergy jurisdictions.
- All missing data (both kWh usage by customer and missing interval-metered data) will be estimated by existing Distribution utility functions.
- Weather normalization procedures will be consistent to those used for creating 'weather normalized' static load profiles.
- The Entergy Registration System will be used to house retailer identification, profile type, settlement areas, voltage levels and other pertinent information required for data aggregation.

#### **Texas**

- Entergy DisCo will provide data aggregation for the market (ERCOT centralized data aggregation dos not cover non-ERCOT companies).
- Entergy DisCo will be responsible for providing data aggregation to market and may contract with vendor for assistance or supply of data aggregation services.

#### Arkansas

- Entergy DisCo will be responsible for providing data aggregation services to market and may contract with vendor for assistance or supply of data aggregation services.
- Entergy will create a data aggregation system for use by the EAI jurisdiction.

  The aggregation system may be used by other Arkansas utilities on a tariff basis.

# 3. RETAIL SYSTEMS

The Retail Operations for Market Mechanics represents three functional areas – Forecasting, Scheduling, and Retail Settlements. The operational functions are defined below along with their high-level business requirements. Forecasting and Scheduling are defined together because they occur prior to the real time market, whereas, Retail Settlements occur after the fact.

For purposes of this document, it is assumed that the Entergy RetailCo will require forecasting of portfolios at two levels: (1) Mass and Middle Markets and (2) Large Commercial and Industrial (C&I) Market. The scheduling function encompasses both Markets and will require combining both market's forecasts for development of schedules.

# 3.1. Forecasting & Scheduling

Forecasting is the process of projecting load on an hourly basis for the next day and on a week forward basis for use as inputs to bilateral contract arrangements and for development of schedules to ensure availability of adequate generation resources to meet demand. Scheduling is the process of developing and submitting a schedule of generation corresponding to the load forecast. Figures 3.1.1., 3.1.2. and 3.1.3. depict the swim lane diagrams for the Forecasting and Scheduling activities for Entergy RetailCo.

Table 3-1. Entergy's jurisdictions, pilot and market opening dates, current customer populations, and

annual energy requirements at market opening.

		Pilot			Annual	Number of
Entergy	Pilot	Start	Market	Number of	Energy	Market
Jurisdictions	Required	Dates	Opening	Customers	Reqts (gWh)	Participants*
Texas	Y	June 2001	Jan. 2002	350,000	15,400	20
Arkansas	N	N/A	Jan. 2002	650,000	19,400	16
Louisiana	-	-	2002 or 2003	1,000,000	50,600	-
Mississippi	-	-	-	375,000	13,000	-
New Orleans	-	-	-	200,000	6,100	-

<sup>\*</sup> Market Participants are Retail Energy Providers (TX) or Energy Service Providers (AR)

Table 3-2. Comparison of basic structure of planned Transmission Organizations in Texas and Arkansas.

Transmission Organization	Pricing Philosophy	Settlement Interval (at market open)	Settlement Interval (end state)	Power Exchange
Entergy TransCo	Nodal/Zonal (LMP) *	Hourly	Hourly	Yes
SPP	Zonal	Hourly	Hourly	No
ERCOT	Nodal/Zonal (LMP) *	10-15 mins	10-15 mins	No

<sup>\*</sup> Locational Marginal Pricing. Marginal prices are calculated at the substation and rates are paid at the zone.

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# 3.1.1. Key Functions

- 3.1.1.1. Obtain input data necessary to perform the forecast:
  - RetailCo's customer portfolio.
  - Weather coefficients and weather adjustment methodology from the DisCo.
  - Weather normalized static load profiles from the DisCo.
  - Aggregated load by profile type, settlement zone/substation and customers (for large C&I accounts) from the DisCo.
  - Hourly forecasts of weather for day-ahead and week-ahead.
  - Feedback on block load additions/deletions/maintenance from large C&I customers.
  - Other data as required.
- 3.1.1.2. Prepare forecasts of day-ahead and week-ahead hourly load requirements by settlement zone, and profile type considering:
  - Customer feedback.
  - Customer switching.
  - Customer growth.
  - Projected weather.
  - Holidays.
  - Distribution and transmission losses.
  - UFE.
  - New Contracts.
- 3.1.1.3. Perform statistical analysis on results to validate and provide risk assessment.
- 3.1.1.4. Aggregate the two market forecasts (Mass/Middle and C&I Markets) into one overall loadshape for the RetailCo for purposes of supply acquisition.
- 3.1.1.5. Develop a balanced schedule of generation that corresponds to the RetailCo loadshape considering:
  - Generator availability.
  - Length of contract.
  - Optimum mixes of base, intermediate, & peaking.
  - Appropriate amounts of on and off peak requirements.
  - Generator prices.
  - Known transmission congestion and constraints.
  - RTO/ISO Power Exchange visible spot price.
  - Risk management and mitigation.
- 3.1.1.6. Forward the final balanced schedule to the RTO/ISO for purposes of securing ancillary services and settling the market.
- 3.1.1.7. Adjust schedules as required by RTO/ISO for congestion and transmission and/or distribution outages.

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#### 3.1.2. Key Assumptions

#### General

- Forecasting and scheduling is the responsibility of Entergy's RetailCo.
- Settlement Zones may be statewide at market opening and move to lower levels as the market matures.
- RetailCo may ride the PX for any percentage of its load.
- RetailCo may bid into the pool to lock in prices for generation in the day-ahead market.
- Network Service Tariffs apply for widely dispersed customers.
- Point-to-Point Tariffs apply for delivery to a specific bus.
- Organization and responsibilities are evolving. These assumptions are subject to change in the near future.

# Customer Care System (CCS) and Enrollment Database

- Entergy's CCS provides customer monthly energy. The Customer Enrollment Database identifies customer's load profile type, RetailCo, settlement zone, substation and voltage level.
- Distinction is made between interval and non-interval metered customers (via profile type).

# **Develop Forecast**

- RetailCo will provide information on customers in Mass/Middle and C&I portfolios.
- The forecast will be provided on an hourly day-ahead, week-ahead, and monthahead basis.
- Longer-term forecasts may be required to secure longer-term bilateral contracts.
- Forecasts must be provided for each settlement area by nodes for purposes of LMP, and include losses.

#### **Develop Schedules**

- Entergy TransCo will not require a "balanced schedule". ERCOT and SPP will
  require the RetailCo to schedule all generation requirements through bilateral
  contracts.
- Entergy TransCo allows bilateral contracts but will also allow the RetailCo to take a portion of generation from the Power Exchange (PX).

#### Accept Bilateral Contracts

- Entergy TransCo will accept bilateral contract schedules from one source. The source is shown here as the GenCo. Otherwise, it may be a scheduling entity.
- ERCOT and SPP require matching schedules of obligations and sources from the RetailCo and the GenCo.

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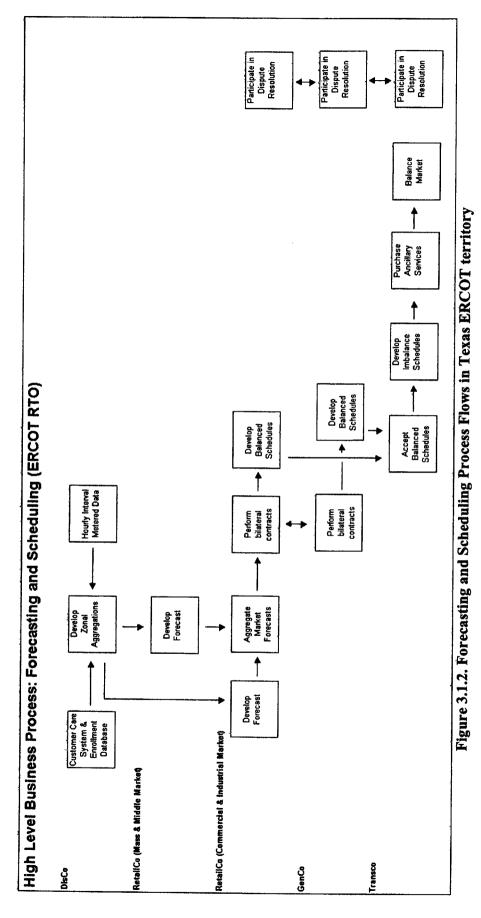
Participate in Dispute Resolution Participate in Dispute Resolution Participate in Dispute Resolution Balance Market Figure 3.1.1. Forecasting and Scheduling Process Flows in Entergy TransCo territory Purchase Ancillary Services High Level Business Process: Forecasting and Scheduling (Basecase: Entergy Transco) Develop Imbalance Schedules Power Exchange (PX) Develop Schedules **†** Hourly Interval Metered Data Perform bilateral contracts Accept bilateral contracts Perform bilateral contracts Develop Substation Aggregations Aggregate Market Forecasts Develop Forecast Bids to PX Develop Forecast Customer Care System & Enrollment Database RetallCo (Commercial & Industrial Market) RetailCo (Mass & Middle Market)

Transco

GenCo

DistCo

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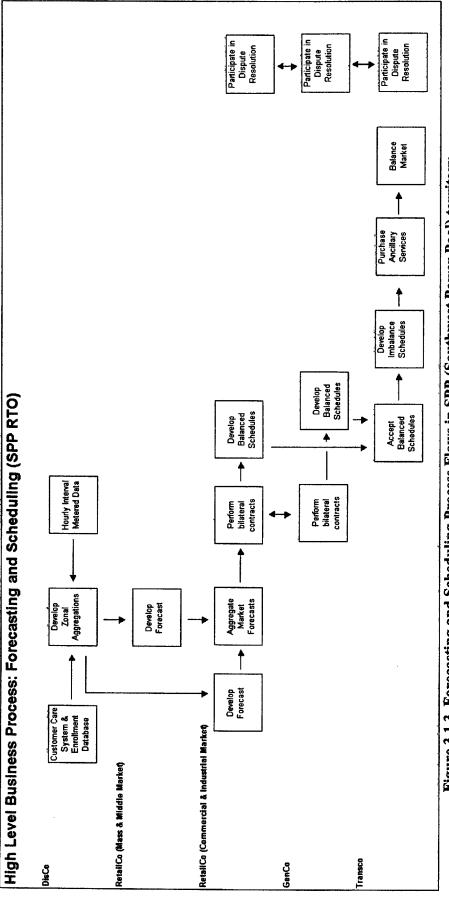


Figure 3.1.3. Forecasting and Scheduling Process Flows in SPP (Southwest Power Pool) territory

# **Develop Imbalance Schedules**

- RTO/ISO will develop a Control Area Forecast of Load to be compared with the aggregated load forecasts and schedules from member Retail Companies. This difference is known as the imbalance.
- To the extent that the Retail Company's forecasts aggregate to a lower amount of load, the RTO/ISO will contract for ancillary services.

# Provide Forecasts & Schedules

- Provide hourly load forecasts to Supply Acquisition.
- Provide hourly load forecast and supply schedules to the RTO/ISO responsible for the Settlement function.

#### **Interfaces**

• Provide necessary interfaces to Supply Acquisition, Trading and RTO/ISO to transfer forecasts and schedules.

#### 3.2. Retail "Shadow" Settlements

Retail Settlements is the process of accounting for and equitably assigning the kWh, costs and payments of generation, transmission, distribution and system operations to the appropriate market participants. The Regional Transmission Operator (RTO) has the primary responsibility for settling the market. However, the RetailCo must duplicate the process to the extent necessary to validate invoicing. This "shadowing" of the RTO/ISO settlement process is called Retail "Shadow" Settlements. This "Shadowing" will also allow RetailCo to impact the financial impact of the dispute resolution cases. The swim lane diagram, Figure 3.2.1. – Settlement Process Flows, depicts the settlement function from the standpoint of the settlement entity. In addition to performing the functions within the RetailCo swim lane the RetailCo would also perform the functions of the Settlement Entity for purposes of reconciling the RTO/ISO invoices.

Table 3-3. Entergy's jurisdictions, pilot and market opening dates, current customer populations, and

annual energy requirements at market opening.

		Pilot			Annual	Number of
Entergy	Pilot	Start	Market	Number of	Energy	Market
Jurisdictions	Required	Dates	Opening	Customers	Reqts (gWh)	Participants*
Texas	Y	June 2001	Jan. 2002	350,000	15,400	20
Arkansas	N	N/A	Jan. 2002	650,000	19,400	16
Louisiana	•	-	2002 or 2003	1,000,000	50,600	-
Mississippi ·	-	_	-	375,000	13,000	-
NOPSI	•	-	-	200,000	6,100	-

<sup>\*</sup> Market Participants are Retail Energy Providers (TX) or Energy Service Providers (AR)

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Table 3-4. Comparison of basic structure of planned Transmission Organizations in Texas and Arkansas.

Transmission Organization	Pricing Philosophy	Settlement Interval (at market open)	Settlement Interval (end state)	Power Exchange
Entergy TransCo	Nodal/Zonal (LMP) *	Hourly	Hourly	Yes
SPP	Zonal	Hourly	Hourly	No
ERCOT	Nodal/Zonal (LMP) *	10-15 mins	10-15 mins	No

<sup>\*</sup> Locational Marginal Pricing. Marginal prices are calculated at the substation and rates are paid at the zone.

#### 3.2.1. Key Functions

- 3.2.1.1. Obtain input data necessary to perform the settlement function:
  - Actual hourly generation kWh by settlement area from RTO/ISO.
  - Actual hourly costs of energy by settlement area from RTO/ISO.
  - Actual costs for imbalances and ancillary services from RTO/ISO.
  - Aggregated hourly "deemed" kWh by settlement area from DisCo.
  - Transmission loss factors from RTO/ISO.
  - Bilateral contracted amounts and costs.
  - Hourly forecasts of kWh by settlement area from RetailCo.

#### 3.2.1.2. Replicate Settlement Calculations:

- Apply transmission loss factors to aggregated hourly "deemed" kWh by settlement area.
- Evaluate Unaccounted For Energy (UFE) assigned to RetailCo Compared to Total UFE by settlement area.
- Allocate the UFE to aggregated kWh.
- Compare the result to the forecasted kWh.
- Calculate the Imbalances and Ancillary Service Costs.
- Determine settlements based on bilateral contracts.
- Reconcile the results with the RTO/ISO invoice.
- 3.2.1.3. Provide support to the RetailCo in any dispute with the RTO/ISO, DisCo, and Generation Providers.
- 3.2.1.4. Forward results to appropriate parties within RetailCo performing the decision support functions.

#### 3.2.2. Key Assumptions

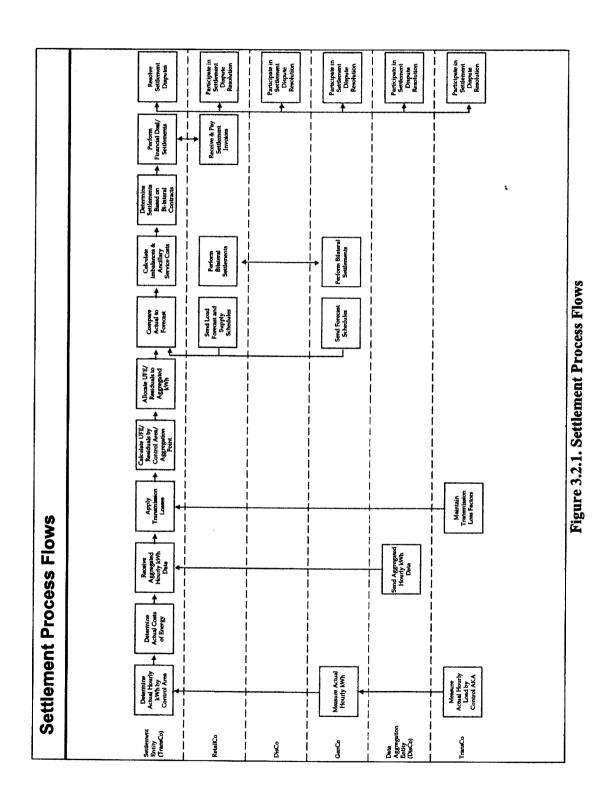
#### General

- Forecasting and scheduling is the responsibility of Entergy's RetailCo.
- Zones may be statewide to begin refining to lower levels as congestion is identified.
- RetailCo may ride the PX for any percentage of its load.
- RetailCo may bid into the pool to lock in prices for generation in the day-ahead market.
- Organization and responsibilities are evolving. These assumptions are subject to change in the near future.

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# 4. DATA TRANSPORT AND TRANSACTION MANAGEMENT

# 4.1. Transaction Management and Transport

All business-to-business transactions that take place between market participants in Arkansas, between Entergy DisCo and the Centralized Agent, and between Entergy RetailCo and the Centralized Agent in Texas must be archived, translated, and transported. Currently the APSC and the PUCT are directing that these transactions occur using EDI and internet. Indications are that future transactions may optionally be transmitted using XML or other emerging protocols.

# 4.1.1. Key Functions

- 4.1.1.1. Transaction Mapping. Data derived from disparate sources (Customer Care System, Registration Database, Interval Data Sources, etc.) must be translated into the protocol directed by the regulatory bodies and mapped in accordance with the guidelines set forth by those commissions.
  - EDI guidelines may vary for each jurisdiction.
  - XML or other file layouts may be optional in some jurisdictions.
  - Transaction mapping and/or file layout may vary by Trading Partner.
  - Data must be validated for compliance to mapping structures and content according to defined business rules.
  - Exceptions that cannot be resolved using business rules must be routed to defined work groups for proper handling.
- 4.1.1.2. Transaction Transport. Data must be transmitted to the receiving parties in accordance with the rules provided by the regulatory bodies in each jurisdiction.
  - Value Added Network (VAN) usage and the internet are currently the approved transport mechanisms in Arkansas.
  - Direct connections and/or FTP should be available if approved for use.
- 4.1.1.3. Transaction Management. Both in-coming and out-going transactions must be archived and available for review by authorized users.
  - Only transactions involving Entergy DisCo may be seen by Entergy DisCo, and only transactions involving Entergy RetailCo my be seen by Entergy RetailCo.
  - Transaction access and viewing must entail a user-friendly front-end in order to streamline issue-resolution.
  - Transactions must be archived and available for retrieval for 2 years.
- 4.1.1.4. Transaction Automation. In order to minimize human intervention, transactions requiring a next-step transaction generation should be automated wherever possible. For example, when the DisCo receives an Enrollment Change Request that includes a request for historical usage, the historical usage

Market Mechanics Request for Proposal Confidential to Entergy Services, Inc. transaction should automatically be generated and transmitted to the requesting party if all business rules have been met.

- Functional Acknowledgements (997 Transactions) with proper coding generated and sent.
- Application Advises (824 Transactions) with proper coding generated and sent in accordance with the business rules.
- Next-step transactions automatically generated and transmitted.
- Notification of exceptions to the defined work group when exceptions cannot be resolved automatically.

## 4.1.2. Key Assumptions

#### General

- One transaction management and transport system will be implemented and usable for all Entergy DisCo jurisdictions.
- Transactions for Entergy RetailCo must be separated from Entergy DisCo, either by firewall or the use of separate systems, although both must operate identically.
- Mapping and transport methodology will be approved by public service commissions and will follow the approved guidelines.
- The scope of these processes includes all interactions between market participants, specifically between the electric utility and the energy service provider. Additionally, the scope may include interaction with TransCos, GenCos, etc., as definitions for their participation develops. Interactions with Meter Data Management, Meter Read, and other portions of the electric utility business to be unbundled will factor into the scope at a later date.
- Specifically excluded from the current scope of Transactions Management and Transport are the interactions between the ultimate end-use customer and the RetailCo and/or DisCo. However, Entergy may want to extend the data transport and transaction management functionality to these areas.

#### **Texas**

- Entergy DisCo will interface with the Centralized Database for all transactions.
- EDI transactions will be similar to those developed and mapped for Arkansas, although they have not been completely defined to date.

#### Arkansas

- Arkansas does not plan to institute a Centralized Database. Therefore, Entergy
  DisCo will interface with other market participants in a point-to-point model or
  through a voluntary centralized system.
- EDI Transactions include, but are not necessarily limited to:
  - ♦ 814 Enrollment, Drop, Change, or Reinstatement
  - ♦ 810 Invoice
  - ♦ 820 Remittance Advice
  - 867 Monthly, Historical, or Interval Usage
  - ♦ 824 Application Advice (to report errors in data)
  - ♦ 248 Write-Off
  - 997 Functional Acknowledgement

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