

Entergy Services, Inc.

As Agent for

Entergy Arkansas, Inc.
Entergy Gulf States, Inc.
Entergy Louisiana, LLC.
Entergy Mississippi, Inc.
Entergy New Orleans, Inc.
Entergy Texas, Inc.

WEEKLY PROCUREMENT PROCESS MANUAL

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1 Definitions and Acronyms

Attachment V: The FERC approved attachment to Entergy's OATT that prescribes the requirements of the WPP.

Automated Reservation System (“ARS”): Used by the WPP to create, upload and update reservations into OASIS.

Automatic Generation Control (“AGC”): Automatically adjusting generation in a Balancing Authority Area from a central location to maintain the Balancing Authority's interchange schedule plus frequency bias. AGC may also accommodate automatic inadvertent payback and time error corrections.

Available Flowgate Capacity (“AFC”): Transmission capacity on defined Entergy transmission system flowgates as calculated in the AFC software that is used to provide short-term transmission service.

Business Practices: Those processes and procedures developed by Entergy that will be utilized by the ICT and Weekly Operations and will be posted on the Entergy OASIS for WPP Participants, Transmission Customers, and Third Party Suppliers for guidance on the availability of transmission service, the WPP, and other matters.

Constrained Flowgate: A monitored flowgate that is a limiting constraint in the WPP optimization for one or more hours of the WPP Operating Week.

Energy Management Organization (“EMO”): The organizational group within Entergy Services, Inc., responsible for wholesale energy purchases and sales on behalf of Entergy's regulated operating companies.

FERC: The Federal Energy Regulatory Commission.

Flexibility Requirement: The total amount of resources that can be de-committed or dispatched down during the WPP Operating Week.

Forecast Gas Price: Henry Hub and Houston Ship Channel gas prices from Intercontinental Exchange (“ICE”) for next-day delivery as posted for the weighted average index price of the Over the Counter (OTC) transactions for the day at close of business Tuesday for Wednesday delivery in the week prior to the start of the WPP Operating Week.

Forecast Peak Requirement: Forecast hourly load plus reserves for the WPP Participant in the hour of the Entergy system coincident peak for the WPP Operating Week.

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Flowgate (“FG”): A flowgate represents a transmission facility or pair of facilities that could be a limiting set of transmission elements as a result of a credible single transmission line contingency. A flowgate can be either: (i) a single transmission facility, referred to as a “monitored element”; or (ii) a set of transmission facilities that includes a “monitored element” and one or more “contingent elements.”

Independent Coordinator of Transmission (“ICT”): Independent administrator of Entergy’s OATT in accordance with Attachment S of the OATT. The specific WPP responsibilities of the ICT include, but are not limited to, oversight of the development, implementation, and operation of the WPP and final approval of all requests for transmission service under the WPP. Entergy has designated the Southwest Power Pool, Inc. (“SPP”) as its ICT.

Load Pocket: A sub-zone or region of the Entergy system that is subject to a combination of transmission system constraints or conditions that are not captured in the load flow model, and require specific units or combinations of units to be committed and dispatched to ensure that the load in that region or sub-zone can be served reliably.

Network Customer (“NC”): Any Load Serving Entity within Entergy’s transmission system that takes network transmission service under Entergy’s OATT.

Network Load: The load of a Network Customer or EMO that is designated under Part III of the Entergy OATT.

Network Resource (“NR”): Any generating resource owned, purchased, or under contract of a Network Customer or EMO, that is designated under Part III of the Entergy OATT to serve that party’s Network Load. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer’s network load on a non-interruptible basis.

Non-Participating Network Customer (Non-PNC): A Non-PNC is (a) a Network Customer that elects not to participate in the WPP and does not provide offer and cost information, (b) a Network Customer that does not qualify as a WPP Participant because insufficient resources are submitted for the WPP Operating Week, or (c) a WPP Participant that provides sufficient resources to the WPP but that does not purchase resources in the WPP as a result of application of the “Hold Harmless” test. Transmission service granted to a Non-PNC prior to the WPP is unaffected by the WPP and treated as an input into the WPP SCUC model. Non-PNC status is only applicable for the WPP Operating Week in question.

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Open Access Same-Time Information System ("OASIS"): The information system and standards of conduct contained in Part 37 of FERC's regulations and all additional requirements implemented by subsequent, applicable FERC orders.

On-peak Period: Those hours in the WPP operating week as defined by the Transmission Provider as being the On-peak hours and posted on the Transmission Provider's OASIS.

Open Access Transmission Tariff ("OATT"): Entergy's transmission tariff on file and approved by FERC.

Operating Reserves: A WPP Participant's required capability above its demand required to provide for load forecasting error, forced outages, and local area protection. Operating Reserves consist of both spinning and non-spinning reserves.

Optimization Run 0: WPP SCUC model's optimization including only the WPP Participant's owned resources for the WPP Operating Week.

Optimization Run 1: WPP SCUC model's optimization including WPP Participant's owned resources and Third Party Offers for the WPP Operating Week. Transmission service will be granted based on the results of Run 1. This is the final run that includes all granted service.

Participating Network Customer ("PNC"): A Network Customer that elects to provide offer and cost information on existing generating resources and Third Party Offers into the WPP for optimization of these resources and granting of additional network service.

Participating Network Customer User Interface ("PNCUI"): An internet based user interface used by a WPP Participant to enter offer and cost information on existing generating resources and Third Party Offers, as well as other data for the WPP.

Peak Hour: The system coincident peak hour of the WPP Operating Week.

Point-to-Point ("PTP") Transmission Service: Transmission service granted in accordance with Part II of Entergy's OATT.

Reliability Must Run Constraints: Requirements for specific units or combinations of units to be committed and dispatched to ensure that load in a region or sub-zone of the Entergy system can be served reliably.

RFCALC: Customized software that uses several inputs including load forecast, unit commitment, reservations, and outages to measure the impacts of source-to-sink transactions on monitored flowgates. These "response factors" are

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calculated on a transaction-specific, flowgate-specific or on an as-needed basis and provided to OATi's WebTrans application to support Entergy's AFC process in evaluating Transmission Service Requests.

RFCALC Lite: Customized software that uses the same inputs as RFCalc in the AFC process for usage in the Weekly Procurement Process (WPP). However, the SCUC model performs some of RFCalc's normal functions, such as computing a powerflow solution. RFCalc is then operated in "Lite" mode where initial data processing occurs according to business rules established for the AFC and WPP processes, and the basecases for the WPP are sent to the SCUC model in PSS/E format. In addition to these hourly models, RFCALC Lite creates several auxiliary output files providing the SCUC model with information including flowgate definitions, source/sink definitions, load pocket values, and other files that native PSS/E format doesn't support

Security Constrained Unit Commitment ("SCUC") model: A computer model that optimizes the hourly commitment and dispatch of generating resources for the WPP Operating Week, subject to the transmission and operating constraints imposed on the model.

Soft Constraint: A constraint in the WPP SCUC model that may be relaxed in the final solution, but in doing so will contribute a \$/MWh penalty in the objective function of the optimization.

Third Party Offer: An offer by a Third Party Supplier to sell on-peak period generation services to a WPP Participant. Third Party Offers may, subject to the terms of Attachment V, also include offers from one Network Customer to another Network Customer, and external resources with firm transmission service to the Entergy border.

Third Party Supplier: An Independent Power Producer ("IPP") or other generation owner or power marketer that, through the WPP, offers generation services to a WPP Participant.

Transmission Customer: An entity that has applied and been accepted as authorized to use the Entergy OASIS to request transmission service under the Entergy OATT.

Transmission Service Request ("TSR"): A formal submittal on the OASIS to request transmission service on the Entergy system.

Weekly Operations ("WO"): The entity within the Entergy Transmission Function that will be responsible for operating and managing the WPP.

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Weekly Procurement Process ("WPP"): The process, operated weekly by WO, under which the ICT grants weekly and daily transmission service in accordance with Attachment V of the Entergy OATT.

WPP Operating Week: The 168 consecutive hours commencing Saturday during which the results of the applicable WPP optimization apply.

WPP Participant: EMO or another PNC, provided that such party satisfies the requirements of Attachment V to the Entergy OATT to participate in the WPP.

2 Overview of the Weekly Procurement Process (WPP)

2.1 Background on WPP

The WPP is an integral part of Entergy's Independent Coordinator of Transmission filing that was approved by the Federal Energy Regulatory Commission on April 24, 2006. The WPP is unique, and as its name suggests, is intended as an optimized procurement process. It is not a centralized market for energy.

2.2 Intent of WPP

The intent of the WPP is to provide Entergy and its Network Customers production cost savings through optimization of short-term (daily and/or weekly) purchases and the use of existing resources for the next week subject to the transmission network's capability and system operating constraints. Additional transmission service is granted through the WPP in the form of new short-term network resources selected in the WPP optimization.

The WPP will be operated by Entergy, subject to the oversight of the ICT in accordance with Attachment V to Entergy's OATT.

2.3 WPP General Requirements

Weekly Operations will operate the WPP to facilitate the further integration of merchant generation and other wholesale suppliers into the mix of resources EMO uses to meet the requirements of the native load customers of the Entergy Operating Companies. The WPP also will be available to Participating Network Customers in the Entergy region.

The ICT will be responsible for approving new network transmission service under the WPP (*i.e.*, the designation of new Network Resources). The granting of new network transmission service will be based on the outcome of the optimization runs under the WPP.

Implementation of the WPP on Entergy's system consists of the following elements:

Run 0: A least-cost, security constrained unit commitment and dispatch model run that uses each WPP Participant's existing resources prior to the consideration of Third Party Offers into the WPP. This model run will consider transmission and generation constraints, including those of Load Pockets, in order to find an economic and reliable solution for the system using network resources that have previously been granted transmission service and for which

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cost data is supplied by the WPP Participants. This model run will be used for future comparison of Run 1.

Run 1: A least-cost, security constrained unit commitment and dispatch model run that contains Third Party Offers. This model run will consider the constraints as modeled in Run 0 (some constraints are modified in Run 1 as described in Sections 5.1.6 and 5.2.2 of this Manual), as well as the WPP Participant's existing generating resources in order to find an economic and reliable solution.

Production costs calculated in Run 1 will be compared to the production costs calculated in Run 0 in a Hold Harmless test, to ensure that each WPP Participant's production costs do not increase as a result of the WPP Participant's participation in the WPP.

To reflect the impact of the WPP in the AFC process, all Third Party Offers will be entered into OASIS as service requests in "RECEIVED" status on Wednesday before the WPP Operating Week, in order to decrement AFCs before the WPP begins. After the process is complete, WPP service requests that were granted will have their status changed to "CONFIRMED" and will be included in the AFC process accordingly. WPP service requests that were refused will have their status changed to "REFUSED" and will have their AFCs released.

2.4 Responsibilities

Third Party Suppliers:

- Submit offers to WPP Participants to be included in the WPP.
- If selected, provide the energy from their generating units per the terms of the contract with the WPP Participant.

WPP Participants:

- Supply a network load forecast for the operating week of the WPP.
- Supply unit and offer information via the PNCUI.
- Supply unit flexibility, AGC and reserve requirements.
- Ensure sufficient existing resources are submitted to the WPP to meet forecasted load and reserves as required under Attachment V of the OATT
- Ensure that there are valid contracts or enabling agreements with Third Party Suppliers submitting offers in the WPP.
- Communicate the WPP results to the selected Third Party Suppliers. The complete list of granted and refused WPP TSRs will be publicly available via Entergy's OASIS.

Weekly Operations:

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- Run the SCUC model to simultaneously optimize the WPP Participants' existing generating resources, along with their Third Party Offers in the WPP, subject to the limitations of the Entergy transmission system and other operating constraints included in the model.
- Analyze the results of the WPP and for any constraint violations, determine if system reliability is compromised, transmission loading relief events would be significantly increased or if the tradeoff between exceeding the soft constraint and denying service in the WPP is not reasonable.
- Maintain the database necessary to perform the weekly optimization.
- Document and update all WPP-related Business Practices that address applications and procedures involving the operation and implementation requirements of the customers' inputs, optimization results, and interfaces with Entergy's OASIS.
- Document and communicate the results of the WPP to the ICT, including the results of the procurement, expected generation dispatch, and new transmission service requested in the WPP.
- Provide necessary resources for the operation of the WPP (including personnel, equipment, communications, and training).
- Upload Third Party Offers to OASIS as Network TSRs.
- Post information on OASIS related to WPP operations, as listed in Section 6 of this Manual.

ICT:

- Oversee the operations of the WPP in accordance with Attachment V.
- Oversee the testing and implementation of the WPP software and processes.
- Participate in the design of and upgrades to the SCUC software.
- Approve network transmission service for the Third Party Offers selected in the WPP.
- Independently analyze the results of the WPP and for any constraint violations, determine if system reliability is compromised, transmission loading relief events would be significantly increased or if the tradeoff between exceeding the soft constraint and denying service in the WPP is not reasonable.
- Implement a stakeholder process to address WPP concerns.
- Post information on OASIS related to WPP operations, as listed in Section 6 of this Manual.

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Transmission Owner (Entergy):

- Provide necessary data for WPP modeling (including line ratings and maintenance schedules).

2.5 Interaction of Third Party Suppliers During the WPP

There will be direct interaction between Third Party Suppliers and the ICT as part of the Offer Input Validation Process (Attachment 3).

All other direct interactions in the WPP will be with the WPP Participants and EMO. Third Party Suppliers will interact with the WPP Participants and EMO, but not directly with Weekly Operations.

3.0 Process Timing Requirements

3.1 Information Submittal

WPP Participants must submit the necessary offer and cost data through the PNCUI by noon on Wednesday prior to the upcoming WPP Operating Week. WPP Participants are encouraged to submit data as far in advance of the noon deadline as practical, as this will help in resolving any data issues that might arise.

3.2 Optimization Process Runs

Weekly Operations will review all of the input data, make the optimization runs, and analyze the results. All optimization runs and associated analyses are anticipated to be completed by 10 a.m. on the Thursday prior to the upcoming WPP Operating Week.

3.3 Transmission Reservations

It is anticipated that by noon on Thursday, the ICT will receive the results of the WPP from Weekly Operations and make a determination on whether to approve the results of the WPP. Starting by 2:00 p.m. Thursday, the ARS will change the status of the Third Party Offers. For those Third Party Offers that were selected in the optimization, the associated OASIS requests will have their status changed from "RECEIVED" to "CONFIRMED." For those Third Party Offers that were not selected in the optimization, the associated OASIS requests will be changed from "RECEIVED" to "REFUSED."

3.4 OASIS Postings

Starting after 2:00 p.m. on Thursday, WPP Participants may view approvals and

denials of TSRs based on WPP results on the Entergy OASIS.

3.5 Notifications

All normal notifications for WPP Participants will be handled through the PNCUI messaging system. In an emergency situation, Weekly Operations may use an exploder email list to communicate to all Network Customers.

3.6 Applicable Time Zone

All times under the WPP will be Central Prevailing Time.

4 Participating Network Customer User Interface & Other WPP Inputs

4.1 Access to PNCUI

The PNCUI is the WPP Participant's gateway to participating in the WPP. To access the application a user must have internet service and a digital certificate (which is similar to that which is used for accessing Entergy's OASIS site). This security feature was implemented to ensure that each party's confidential cost and offer data is secure. While the internet site can be used by multiple WPP Participants, the application ensures that only WPP Participants or their designees have access to that WPP Participant's data. That is, no WPP Participant has the capability to view another WPP Participant's cost and offer data or customer-specific results from the WPP.

Once the protocols have been approved, the WPP Participant will commence an internet service session and access the web interface located at the following URL: <https://wpp.entergytransmission.com> . This will allow the WPP Participant to access the PNCUI home screen, where a user name and password or a digital certificate must be entered before obtaining further access to the PNCUI. The user name will be defined by the Weekly Operations group and each user will be responsible for its own password.

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4.2 PNCUI Input Template

View Only Field	Value	Effective Date
Data Set Status	SUBMITTED	05-DEC-07
PrimaryFuel	GAS	13-MAR-07
StartupFuelName	GAS	13-MAR-07
Nameplate Rating	50	13-MAR-07

PNC Editable Field	Freq.	Value	Effective Date	Status Comment
Self-Scheduled	Weekly	<input type="text"/>	05-DEC-07	Valid
Pmax (MW)	Hourly	Profile	28-NOV-07	Valid
Pmin (MW)	Hourly	Profile	28-NOV-07	Valid
Forecast Fuel Price Source	Weekly	HENRY HUB	05-DEC-07	Valid
Forecast Fuel Price (\$/MBtu)	Daily	Profile		New
Fuel Adder (\$/MBtu)	Weekly	<input type="text"/>	05-DEC-07	Valid
Var_O_M (\$/MWh)	Weekly	<input type="text"/>		New
Ramp Rate (MW/minute)	Weekly	<input type="text"/>	05-DEC-07	Valid
Min Runtime (hours/wk)	Weekly	<input type="text"/>		New

4.3 Offer and Cost Information Required

Data requirements for the SCUC model are included under Section 3 of Attachment V of Entergy's OATT. Each WPP Participant or Third Party Supplier must ensure that it satisfies all data requirements under Section 3 and any other applicable provisions under Attachment V.

4.4 Information Validity Testing and Notification

There are two ways that WPP Participants can submit data to the WPP through the PNCUI. The first method is to manually enter the data into a series of web based graphic user interface screens. When data entry is complete for a given resource, for example, the user needs to instruct the PNCUI to save that data. The data is then saved locally for that information entry session. An initial validation check is done within the PNCUI to ensure that the entered data falls within a range of reasonableness for the data type.

Once the data entry is complete, the user will instruct the PNCUI to save the data to the Market Manager database. Another set of validations is performed by the PNCUI before saving the data, and the user will be notified through the PNCUI regarding the validity of the data. These validations will include a check to ensure the capacity of the WPP Participant's resources does not exceed the applicable OASIS reservations, the capacity of the WPP Participant's resources does not exceed the plant capacities, and the WPP Participant's capacity meets its Network Load plus any additional Operating Reserve requirements. Any invalid data must be corrected and resubmitted by the WPP Participant before it is accepted by Market Manager and can form the basis of the next set of WPP optimization runs. All of the data for a WPP Participant must be in a "submitted" status in the Market Manager before the SCUC model will use the data for any optimization runs.

In addition the Third Party Offers will be validated by the Market Manager software to verify that the sum of the existing Network Resource designation of the resource, PTP OASIS reservations from the resource and Third Party Offers from the resource included in the WPP does not exceed the capacity of that resource. If the offers fail this validation then all WPP offers from the resource will be removed and the PNC will be notified. Due to the timing of the WPP, the PNC will not have the opportunity to resubmit the rejected offers.

The second way for the WPP Participant to enter the data into the PNCUI is by automation. There is an option in the model to import data into the system. This is a pre-defined, formatted file, with a 3 character extension RDF, and contains all of the data requirements that would have to be entered manually

4.5 Load Data Development and Use

WPP Participant load data used in the WPP will be the same load data that is

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used in the AFC models to calculate the AFCs for the corresponding period of the WPP Operating Week. This data is expected to be developed by each individual Network Customer and should include the necessary transmission losses on the Entergy transmission network.

In the event that the load data is not provided by the Network Customer, current AFC processes are in place to create an estimated load forecast for that Network Customer based on historical data. Once the load data is submitted or created for the AFC process, it is electronically transferred to Weekly Operations to be used in the WPP.

4.6 Fuel Pricing Determination and Use

Fuel prices for generating resources modeled in the WPP fall into two categories: (1) resources using natural gas and (2) resources for which the WPP Participant specifies the fuel cost. If a generator's primary fuel source is natural gas, then the WPP Participant will designate the fuel source as "Henry Hub" or "Houston Ship Channel." Weekly Operations will model these resources for the WPP Operating Week using a gas price taken from the ICE website - <https://www.theice.com/homepage.jhtml>. If the primary fuel specified by the WPP Participant is not natural gas, then the WPP Participant will designate the fuel source as "User Defined," and the user must enter in a daily fuel price in \$/MMbtu's specific to each resource.

4.7 Attestation Statement Requirement

FERC Order Nos. 890 et seq. require that a Network Customer provide an attestation statement at the time a Transmission Service Request (TSR) is confirmed when designating a new network resource. However, if the TSR is pre-confirmed, then the attestation statement is required at the time the TSR is submitted. Since third party offers in the WPP are pre-confirmed, the attestation statement must be included as part of the third party offer submitted in the WPP.

In addition, Order Nos. 890 et seq. require certain information about Off-System network resource's firm transmission arrangements, operating restrictions on the source and approximate variable generation costs.

Entergy requested that the Commission allow WPP Participants to (a) satisfy the attestation requirement for requests submitted through the WPP by email or facsimile to the ICT and (b) file one attestation that applies to all offers submitted in the WPP for a week. FERC approved Entergy's attestation email or facsimile request in its March 17, 2009 Order. All network TSR attestations from WPP Participants will be sent via email to the ICT. WPP Participants may file one attestation that applies to all offers submitted in the WPP for a week.

5 WPP Model Constraints

5.1 Flexibility in the WPP

5.1.1 Overview of Flexibility in the WPP

For the purpose of the WPP, a flexible resource is one that can be backed down or de-committed within the WPP Operating Week. A flexible resource could be an owned unit, a resource that is currently under contract to a WPP Participant, or a resource offered into the WPP.

5.1.2 Categories of Flexibility

There are three categories of flexibility that can be specified by the WPP Participant:

Intra-Hour Flexibility: Resources that can be ramped down or de-committed with less than one hour notice.

Hourly Flexibility: Resources that can be ramped down or de-committed with notice of greater than one hour but less than 9 hours.

Daily Flexibility: Resources that can be de-committed with notice of between 9 and 24 hours.

5.1.3 Specifying Flexibility in the PNCUI

For each category of flexibility, the WPP Participant will specify the time threshold it requires for its Network Resources. For instance, a WPP Participant could specify intra-hour flexibility to be 30 minutes, hourly flexibility to be 4 hours, and daily flexibility to be 18 hours. Along with specifying the time threshold for the three categories of flexibility, the WPP Participant will also specify the MWs of flexible resources required for each time period. The time thresholds and MWs of flexible resources in each category will be specified in the PNCUI.

Example:

Category	Allowable Range	WPP Participant Set Threshold	WPP Participant Required MWs
Intra-Hour Flexibility	0 – 60 min.	30 min	200 MW
Hourly Flexibility	1 – 9 hours	4 hours	300 MW

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Daily Flexibility	9 – 24 hours	12 hours	1,000 MW
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5.1.4 Resources that Contribute to Flexibility

For a resource to contribute to the hourly or intra-hourly flexibility requirements of a WPP Participant, the resource must be able to reduce its output after receiving notice from the WPP Participant. A unit must be able to be de-committed within the notice period to contribute to daily flexibility. The degree to which a unit can have its output reduced will be specified in the offer parameters associated with a Third Party Offer, or the cost and operating information of the WPP Participant's existing resource. The flexibility will also be constrained by the other considerations associated with the unit or Third Party Offer characteristics, including minimum up time, minimum energy take, and AGC/Operating Reserve requirements.

The principal parameters that determine a unit's flexibility are its 1) notice provision down, 2) ramp rate, 3) resource Pmin, and 4) de-commit notice provision. These parameters are defined as follows:

Notice Provision Down – the amount of time (measured in minutes) that is required between the instruction from the WPP Participant to the unit and the commencement of ramp-down of the output.

Ramp Rate – the rate at which the unit can reduce its output once it has started to ramp down. Measured in MWs/minute.

Resource Pmin – the minimum operating level of the unit. For the unit's output to be reduced further, it must be de-committed and its output will be 0 MW.

De-commit Notice Provision - the amount of time (measured in minutes) that is required between the instruction from the WPP Participant to the unit that it should be de-committed and the output of the unit being reduced to 0 MW.

The combination of these specified parameters for the resource will determine the units' contribution to the WPP Participant's required flexibility.

Examples:

- An owned resource scheduled at 500 MW, with a Pmin of 200 MW and that can be ramped at 5 MW/min, or de-committed with 2-hours notice can provide the following flexibility:
 - $5 \text{ MW/min} \times 30 \text{ min} = 150 \text{ MW}$ of Intra-Hour Flexibility, or

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- (500 MW – 200 MW) = 300 MW of Hourly Flexibility, and
- 500 MW of Daily Flexibility.
- A generating unit scheduled at its Pmin of 300 MW that can be de-committed with 12-hours notice will provide 300 MW of daily flexibility.
- A must-take contract for 100 MW over the week provides no flexibility.

5.1.5 Treatment of Flexible Resources and Offers in the Optimization Runs

The SCUC model used in the WPP optimization will select those resources that can supply the WPP Participant's forecast load for the WPP Operating Week in an economic manner based on the offer and cost information submitted by the WPP Participant. The selected resources will be subject to a number of constraints, including transmission limitations, AGC, Operating Reserves, and flexibility.

The SCUC model will treat the flexibility constraints like any other constraint in the model, and will choose resources that can meet the specified requirements. All flexibility constraints will be met independently of each other and of the other constraints placed on the model. The only exemption is for daily flexibility – where the daily flexibility MWs can also include unit capacity contributing to hourly or intra-hour flexibility. That is, a resource that is flagged to provide 100 MWs of hourly flexibility in a given hour can also count the same 100 MWs as being available to meet the daily flexibility criteria.

Generating units that have daily/weekly minimum run times, or daily/weekly minimum energy takes as part of their WPP offers or input characteristics will not be considered as contributing to daily flexibility. They may, however, contribute to hourly or intra-hour flexibility down to their Pmin values, or to an operating level that allows delivery of the minimum energy take for the day or week. In calculating the hourly and/or intra-hour flexibility of a unit with a daily minimum energy take, the SCUC may allocate the minimum energy to different hours within the day and so optimize the flexibility contribution of the unit to the flexibility constraints.

If there is excess intra-hour flexibility available from the selected resources, that flexibility may also be counted toward the hourly flexibility requirement. For example, if a unit is able to provide 100 MWs of intra-hour flexibility and that amount exceeds the flexibility requirement set by the WPP Participant (i.e., intra-hour flexibility was not a binding constraint on the optimization, even without the 100 MWs), then that 100 MWs can be counted towards hourly flexibility.

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A unit flagged as meeting the AGC constraint cannot contribute to intra-hour and hourly flexibility if, in backing down or de-committing the unit, it is no longer able to provide AGC (unless the AGC requirement could be met without that unit, *i.e.*, AGC is not binding).

5.1.6 Meeting Flexibility Requirement in Run 0 and Reducing the Flexibility Requirement

The WPP Participant will set the flexibility requirement for the upcoming WPP Operating Week through the PNCUI. If the flexibility requirement set by the WPP Participant cannot be met in WPP Run 0, *i.e.*, with the contracts and Network Resources that are in the WPP Participant's existing line-up, then the flexibility requirements will be reduced to a level where a feasible solution can be achieved in Run 0. The adjusted flexibility requirement will then be used in the subsequent Run 1.

5.1.7 Summary

The following table summarizes the flexibility constraints in the WPP:

Category of Flexibility	Time Span	Units that May Contribute
Intra-Hour	<1hour	Ramping units, fast shut-down (units that have met minimum run hours). Units with minimum energy takes and minimum run times.
Hourly	1 – 9 hours	Ramping units, and units that can be de-committed. Units with minimum energy takes and minimum run times.
Daily	9 - 24 hours	All flexible resources that can be decommitted within the notice provision threshold

5.2 Transmission Constraints in the WPP

5.2.1 Modeling Transmission Constraints

The WPP utilizes the same transmission models as the AFC process and is passed an event file that contains the transmission flow limits, and their Total Transfer Capabilities (TTC), for each hour in the WPP Operating Week (see Section 7 for more details). At the onset of the run, the model will decrement the TTC algebraically by the amount of "fixed flow" across each element. These fixed flows are the flows caused by resources that cannot be re-dispatched by the WPP SCUC engine, such as confirmed firm Point-to-Point reservations and External Control Area (ECA) resources and non-WPP Participant units

dispatched by RFCALC Lite to serve ECA and non-WPP Participant load. The model will then solve for binding transmission constraints by economically re-dispatching units that are contributing to the constraint or providing counter-flow.

5.2.2 Resolving Binding Constraints in Run 0 and Reducing the Line Flow Limits

If the SCUC model cannot fully solve for a transmission constraint in Run 0, the model will adjust the line rating to the value that was met in Run 0 plus 1 MW and use this new value in Run 1. The overload is only modified for the hours in which the violations occurred.

For example: Flowgate X has a rating of 200 MW, and in hour 64, a line flow violation of 10 MWs occurs on Flowgate X. In Run 1, the rating for Flowgate X will be 211 MWs in Hour 64 and 200 MWs in all other hours.

5.3 AGC/Operating Reserves in the WPP

A WPP Participant may specify the amount of regulation (or AGC) service (both up and down) and Operating Reserves it requires on an hourly basis. The model will economically schedule units in order to fulfill these requirements. For the AGC down requirement the model will seek to ensure that units designated as being able to provide regulation service are dispatched such that they have enough dispatch capability (the difference between their operating point and regulation minimum) to meet the requirement. For AGC up and Operating Reserves, the model will dispatch the appropriate units such that they have enough dispatch capability available to move up to meet the designated requirement.

For a Third Party Supplier to include AGC as part of its offer in the WPP, the requirements of the applicable Business Practices included as Attachment 2 of this Manual must be satisfied. It should be noted that there will not be separate payments to Third Party Suppliers for AGC service, as the service is provided as part of the Third Party Supplier's bundled energy and ancillary services offer to the WPP Participant.

5.4 Load Pocket Constraints and Treatment of Reliability Must Run Units

Load Pocket and Reliability Must Run constraints will also be taken into account in the SCUC optimization. To the extent a Third Party Supplier submitting an offer into the WPP can displace a WPP Participant's existing resource in meeting a Load Pocket and Reliability Must Run constraint, then the SCUC model may select that offer and reduce the output or decommit the existing resource if this results in a lower projected overall production cost, while allowing all other constraints in the model to still be honored.

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The WPP models both Load Pocket commitment and import constraints. The import constraints are handled in the same manner as a transmission constraint. Unit commitment within a Load Pocket is modeled through the use of commitment nomograms within the Market Manager. These nomograms indicate the Load Pocket load levels and the unit(s) that need to be committed at the various load levels. During the RFCALC process, a file that contains the hourly loads for each Load Pocket is created and passed to the WPP. This file, along with the nomogram definitions that are stored in the Market Manager application, is then used during the SCUC run to determine any Entergy owned resources or merchant generating facilities submitted as offers that can be selected as Reliability Must Run units that need to be committed to satisfy the Load Pocket requirement.

For specific and defined minimum capacity Load Pockets, the SCUC will also ensure there are sufficient committed resources within the Load Pocket so load can be served even with the loss of the largest generating unit under peak load conditions. In determining the required commitment and associated nomograms for the load pockets, it is assumed import capacity into the Load Pocket can be fully utilized in the case of a contingency.

6 Transmission Service Reservations on OASIS

6.1 Overview of OASIS Interactions with the WPP

TSRs for WPP Network Service will be posted on OASIS as required for all TSRs under the Entergy OATT administered by the ICT. These TSRs will be given a status of “RECEIVED” at the beginning of the weekly WPP cycle and will be given a status of “CONFIRMED” or “REFUSED” based on the results of the WPP.

6.2 WPP Firm Network Service

The ICT will approve the designation of new Network Resources granted in the WPP.

A WPP Participant may submit Third Party Offers to be evaluated by the WPP by entering the appropriate Third Party Offer information into the PNCUI anytime prior to noon on the Wednesday prior to the upcoming WPP Operating Week. At noon on Wednesday, the Third Party Offer information will be used by ARS to create and then upload Network Service TSRs to the Entergy OASIS. Each TSR will be assigned a status of “RECEIVED”.

Based on the results of the WPP, the Network Service TSR will be assigned a status of “CONFIRMED” (to the extent the Third Party Offer is granted by the WPP) or “REFUSED” (to the extent the Third Party Offer is not granted by the WPP). Capacity granted in the WPP may be less than the capacity requested, and the granted capacity will be indicated on the OASIS posting. The service will be granted as “daily” Network Service and the granted capacity will be the maximum MW for the selected resource in an hour for that day.

6.3 OASIS Data used by the WPP

The following categories of reservation data are pulled from the OASIS by the WPP and used in the WPP:

Firm Point to Point: All Firm PTP TSRs with an assigned status of “CONFIRMED”.

Firm Network Designation: All Firm Network Designation TSRs with an assigned status of “CONFIRMED”.

Firm Network Designation TSRs (for Third Party Offers) with an assigned status of “RECEIVED” or “ACCEPTED” will not be pulled from the OASIS by the WPP. The Third Party Offer information was entered through the PNCUI directly to the WPP Market Manager and was used to generate the Third Party Offer TSRs.

6.4 Data Posted to OASIS as a result of the WPP

By 2:00 p.m. on Thursday, the ICT will make a determination as to whether it will accept or reject the results of the WPP from Weekly Operations. Upon ICT approval, the status of all of the OASIS TSRs for WPP Network Service (that were created for Third Party Offers) will be updated. For those WPP Network requests that were granted service, the status will be changed from "RECEIVED" to "CONFIRMED." For those WPP Network Service requests that were not granted, the status will be changed from "RECEIVED" to "REFUSED".

6.5 Other OASIS Postings for the WPP

Periodically or as required the following information will be posted on the Entergy OASIS:

Posted by Weekly Operations:

- Schedule for data exchange
- The applicable \$/MWh amount for each of the soft constraints
- The on-peak offer period

Posted by the ICT:

- Total energy purchased (MWh) in the applicable month and the maximum capacity (MW) purchased in an hour during that month
- Notification if the WPP is Cancelled

This information will be posted at the following location:

<https://oatioasis.com/EES/EESDocs/EntergyWeeklyProcurementProcessInfo.htm>

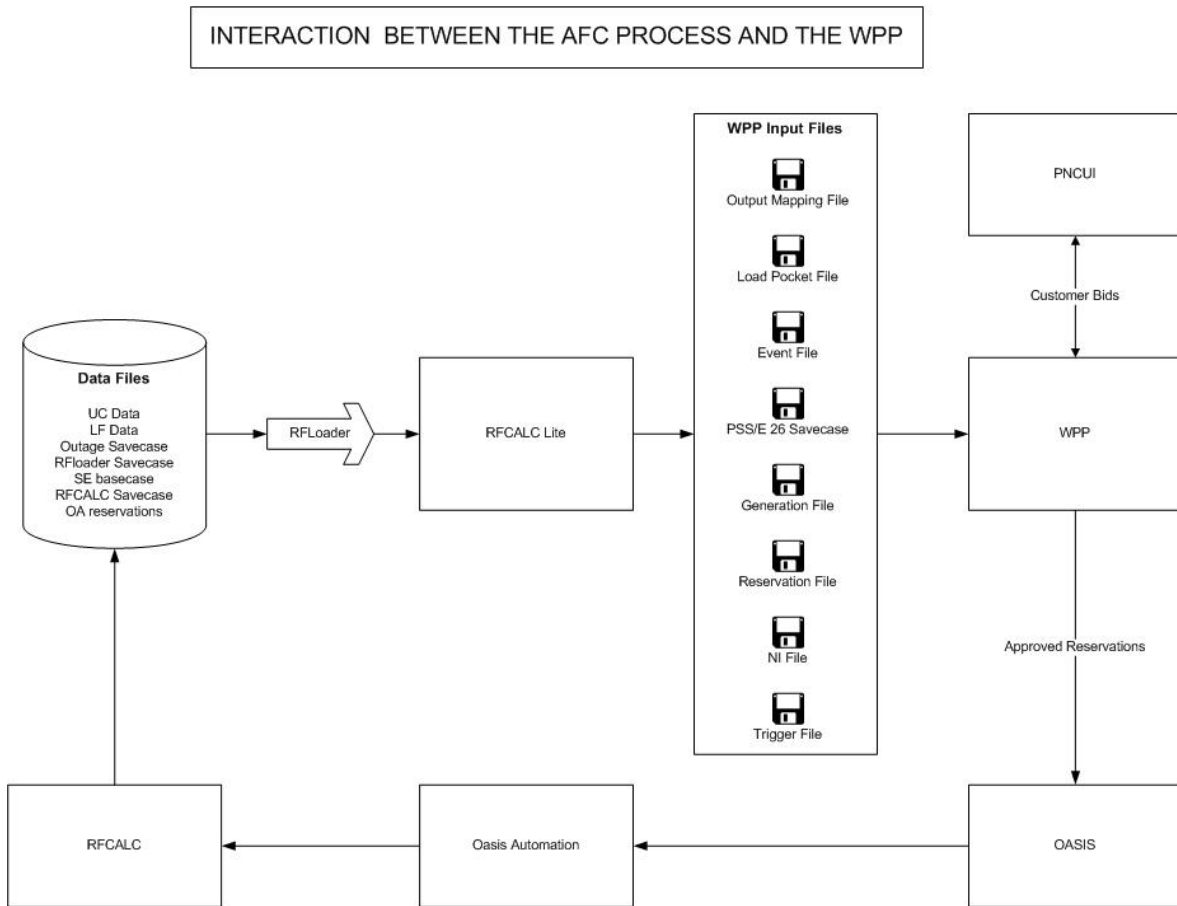
7 Interaction between the AFC and WPP processes

7.1 Overview of Interaction between the AFC process and the WPP

The WPP optimization is performed using 168 consecutive hourly powerflow models that are based on an EMS representation of the transmission network. The topology for the 168 models is obtained from the AFC process. Upon completion of the WPP optimization, the list of approved transmission reservations is sent to the AFC process for inclusion in subsequent resynchronizations of RFCALC. During the optimization run, TSRs will continue to be processed through the AFC process using the latest AFC values.

7.2 Data Flow between the AFC process and the WPP- Inputs to the WPP

Figure 1 describes the data flow between the two processes.



The following sections describe in detail the inputs to the WPP optimization run provided by the AFC process.

7.2.1 PSS/E 26 savecase

RFCALC Lite will provide a set of 168 savecases in the PTI PSS/E Version 26 format to the WPP SCUC engine. These savecases represent the topology of the system for each of the 168 hours in the WPP run. The savecases are not solved powerflow models. However, the savecases do have load/generation balance built into the accompanying data input files.

7.2.2 Event File

The event file is the data file that contains the contingencies and monitored elements used to define the AFC flowgates for every hour that the SCUC engine

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is to consider when solving for the WPP Operating Week. The event file lists each flowgate CE/LE (contingent element/limiting element) and any other limiting or contingent element. The event file will specify the bus and circuit information for each CE/LE consistent with the PSS/E model file. The TTC of the flowgate will be included in this file.

The power flow files that are used in the WPP are created from the same models the AFC process uses.

7.2.3 Generation File

The Generation file lists each Source and Sink defined on Entergy's OASIS. The file will contain the OASIS Source/Sink name, the associated generators bus numbers and the generation unit identifiers. The OASIS Source/Sink names will be unique and will not change from hour to hour within the model files for a given WPP Operating Week. This file will include all generators that are to be included in the SCUC optimization or load balance calculation.

7.2.4 Load Pocket File

The Load Pocket file contains the hourly load profile (in megawatts) for each Load Pocket. The Load Pocket file contains a data block for each hour utilizing the start and end hour tags described above. Each Load Pocket is defined for each hour of the WPP. The rules for the RMR requirements along with the resources capable of meeting those requirements are maintained within the Market Manager in the form of a nomogram. The transmission limitations are included in the nomogram.

7.2.5 Net Interchange File

The Net Interchange (NI) file lists most of the external control areas with the net import or export power expressed in megawatts. The NI of a control area is defined as the net sum of all import and export OASIS reservations of the control area. The NI for Entergy and the embedded Control Areas will be computed by the SCUC engine using all OASIS Reservations which cross the Entergy control area boundary. For the external areas for which a network interchange value is not specified, those areas will be treated as free-flow by the SCUC engine meaning that NI constraints will not be applied in the DC Powerflow solution. The total interchange of such free-flow areas will be balanced by the SCUC.

7.2.6 Reservation File

The Reservation file will contain a list of all reservations included in the PSS/E model files.

7.2.7 Trigger File

The Trigger file is an “end of job” indicator which signals that all of the model input files have been completed by RFCALC for the WPP Operating Week.

7.3 Clearing the OASIS TSR Queue

The Clear the Queue (CTQ) process establishes queue time priority for WPP TSRs by removing all non-WPP, non-Confirmed, firm TSRs that impact the upcoming WPP Operating Week from the OASIS TSR queue. The CTQ Process executes around 12:00 p.m. on Wednesday prior to the WPP Operating Week.

In order for a TSR to be impacted by the CTQ process, the following conditions must apply:

- The impacted TSR must be in a firm class.
- The TSR must be in a non-confirmed state (i.e. any status other than “CONFIRMED”) before CTQ execution.
- The TSR must not have a WPP or AGC subclass.
- The TSR must be for capacity granted in any part of the 168 hours included in the upcoming WPP Operating Week.
- The TSR must have a daily, weekly, or monthly service increment.
- The TSR must have a status of “Received,” “Accepted,” or “Counteroffer.”

Any request for service submitted prior to 12:00 p.m. on Wednesday that impacts the next WPP Operating Week may be subject to stricter customer response times than those currently established in FERC Order No. 638 and the Entergy Business Practices.

The ICT will make its best efforts to evaluate all TSRs queued prior to 12:00 p.m. on Wednesday before the CTQ process executes. However, there may be instances where there is not sufficient time for the ICT to evaluate all such TSRs, especially those TSRs submitted just prior to 12:00 p.m. on Wednesday.

Any reservations queued prior to 12:00 p.m. on Wednesday that does not impact the next WPP Operating Week will be subject to the current time requirements established in FERC Order No. 638 and the Entergy Business Practices.

Once the CTQ process is executed, the Third Party Offers submitted into the WPP by WPP Participants are uploaded to OASIS as firm Network TSRs with a status of “Received.” The Third Party Offer upload to OASIS occurs around 12:01 p.m. on Wednesday and AFCs are decremented.

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At the conclusion of the WPP by 2:00 p.m. on the Thursday, prior to the WPP Operating Week, the status of the WPP Network Service requests will be updated on OASIS to “Confirmed” or “Refused” based on the results of the WPP.

7.4 Updating AFC values after the WPP Optimization Runs

The completion of the WPP optimization runs for the upcoming WPP Operating Week will be followed by the confirmation of Network Service granted via the WPP. The granted services are reflected in the form of “CONFIRMED” TSRs on the OASIS. The AFC process will use the confirmed TSR information from the OASIS to model reservations into the RFCALC powerflow model. To the extent a Network Customer submits Unit Commitment information in one of the three defined formats (*i.e.*, Hourly, Stack, and Unit Commitment), RFCALC will utilize the Network Customer’s input to develop the powerflow model. In the absence of the Network Customer submitting unit commitment and load information using one of the three formats, RFCALC will use the default option, which involves modeling reservations in reverse queue order to attain proper load/generation balance in the power flow models.

In summary, the results of the WPP are communicated via existing input files to RFCALC. There is no direct transfer of results from the WPP to the AFC process, *i.e.* the WPP generation dispatch will not be transferred to the AFC process directly.

Based on the results of the WPP, the request will be assigned a status of “CONFIRMED” (if the Third Party Offer is granted by the WPP) or “REFUSED” (if the Third Party Offer is not granted by the WPP).

7.5 OASIS notification

The results of the WPP will be communicated to the OASIS in the form of “CONFIRMED” TSRs. The confirmed TSRs granted to provide service for the accepted Third Party Offers will be identified in OASIS by an entry in the “SUBCLASS” field of “WPP”. Similarly TSRs granted to facilitate Third Party Offers that include AGC will have a SUBCLASS field entry of “AGC”. In addition to the OASIS postings, each WPP Participant will be provided information on the granted offers via the PNCUI.

8 Optimization Process Runs

8.1 Offer Data Testing to Determine Acceptance and Rejection

Each Third Party Supplier that wishes to participate in the WPP will submit offers for On-peak Periods to the WPP Participant with which it intends to contract. As long as the Third Party Supplier has satisfied the qualification requirements of the WPP Participant to which it provides the offer and the data elements supplied in the offer pass the initial validation tests, the Third Party Offer will be entered into the PNCUI by the WPP Participant along with all of the other WPP Participant's resources. If the SCUC model determines that the Third Party Offer is more economical than competing resources while adhering to the WPP Participant's flexibility and reserve requirements, and the other constraints placed on the commitment and dispatch of resources for the next week (including transmission limitations and Load Pocket requirements), then the Third Party Offer will be accepted in the WPP and the ICT will determine whether to approve the results of the WPP and grant transmission service for that (and other accepted) offer. If the Third Party Offer is not accepted, then by default, it will be refused.

8.2 Security Constrained Unit Commitment Model Description

The SCUC model is the optimization engine for the WPP which grants transmission reservations to Transmission Customers.

SCUC iteratively uses a Linear Program ("LP") and a Mixed Integer Program ("MIP") solution technique to solve the hourly commitment schedule. In this iterative process, first the LP is solved for all 168 consecutive hours to determine hourly marginal costs for each generator bus and the hourly dispatch for each generating unit, subject to demand, transmission, ancillary services (reserve, regulation, and flexibility requirements), and generating unit hourly operating constraints. After solving the LP for all 168 consecutive hours, the MIP will schedule each generating unit based on the hourly marginal costs for the entire 168 hours of the WPP Operating Week, subject to generating unit operating constraints such as start-up costs, minimum up-time, minimum down-time, minimum run-time, ramp rates, and daily and weekly energy limits and maximum number of starts. After each iteration, cost and marginal benefits for each generating unit will be computed and the cost signal for each generating unit will be adjusted and used in the subsequent dispatch and commitment iteration until marginal benefits exceed the production costs. The iterative process is repeated until the solution converges.

8.3 SCUC Model Soft Constraints

The model will include "soft" constraints and use penalty factors associated with these constraints to eliminate or minimize these constraint violations.

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Weekly Operations will establish a separate \$/MWh or \$ amount for each of the following soft constraints included in the optimization runs:

- Intra-hour flexibility requirement for a WPP Participant (\$/MWh)
- Daily flexibility requirement for a WPP Participant (\$/MWh)
- Hourly flexibility requirement for a WPP Participant (\$/MWh)
- Line flow limits (\$/MWh)
- AGC requirement for a WPP Participant (\$/MWh)
- Hourly operating reserves requirement for a WPP Participant (\$/MWh)
- Intra-hour operating reserves requirement for a WPP Participant (\$/MWh)
- WPP Participant load balance (\$/MWh)
- Plant generation (\$/MWh)
- Maximum starts for a generator (\$/MWh), and
- System Load Pocket requirements (\$)

The ICT will oversee the establishment of the \$/MWh or \$ amount for each soft constraint and will post such amounts on OASIS.

To the extent the soft constraints for line flow and flexibility cannot be satisfied in Run 0, the level of the constraint will be adjusted to a quantity that can be solved for in the run, and these adjusted limits will be used for all subsequent SCUC runs for that WPP Operating Week.

The violation of constraints will have different implications depending on the model run in which the violation occurs:

Run 0: Violation of any of the soft constraints associated with transmission flow limits or flexibility will not cause the run to be deemed invalid. Rather, the constraints will be adjusted in Run 1 to reflect the level of the transmission flow limits and flexibility soft constraint violations of Run 0.

Run 1: Violation of “soft” constraints associated with flexibility will not cause the run to be deemed invalid if the violation is within the acceptable levels established by the WPP Participant. If the flexibility level is violated in an hour, the ICT and Weekly Operations will determine if the violation can be resolved (i.e., the violation can be reduced so that it falls within the established levels) with an “operational adjustment.” For example, a unit can be cycled, the start-up of a unit can be delayed for a short period, or a unit can be shut down earlier such that it removes the flexibility violation for that hour. Any such “operational adjustment” must be consistent with

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offer criteria, generator operating characteristics, and contract constraints. If Weekly Operations determines, after consultation with the ICT, that an “operational adjustment” is available and the flexibility violations will not cause the results to be deemed infeasible, then Weekly Operations will provide the results of the run to the ICT. The ICT shall accept the results and service will be granted notwithstanding the flexibility violation. If Weekly Operations determines, after consultation with the ICT, that an “operational adjustment” is not available and the WPP run is infeasible, then Weekly Operations will provide the results of the run to the ICT. The ICT shall refuse the results and no Third Party Offers will be accepted through the WPP for that week. To the extent Weekly Operations takes any actions inconsistent with an ICT recommendation or conclusion on the availability of an “operational adjustment,” the ICT will report such inconsistency to applicable regulators.

For all other soft constraint violations (excluding violations associated with supplier offer parameters), Weekly Operations and the ICT each will analyze whether it believes that (a) accepting the results of the WPP would compromise system reliability, (b) accepting the results of the WPP would significantly increase transmission loading relief events, or (c) the tradeoff between exceeding a soft constraint and denying service through the WPP is not reasonable. If Weekly Operations determines, after consultation with the ICT, that accepting the results of the WPP would compromise system reliability, significantly increase transmission loading relief events, or result in an unreasonable tradeoff, then Weekly Operations will provide the results of the run to the ICT. The ICT may reject the results of the WPP and the results will be deemed infeasible and no Third Party Offers will be accepted through the WPP for that week. If Weekly Operations determines, after consultation with the ICT, that the WPP run is feasible, then Weekly Operations will provide the results of the run to the ICT. The ICT may approve the results of the WPP and service will be granted notwithstanding the soft constraint violation. To the extent Weekly Operations takes any actions inconsistent with an ICT recommendation or conclusion on the feasibility of the run, the ICT will report such inconsistency to applicable regulators.

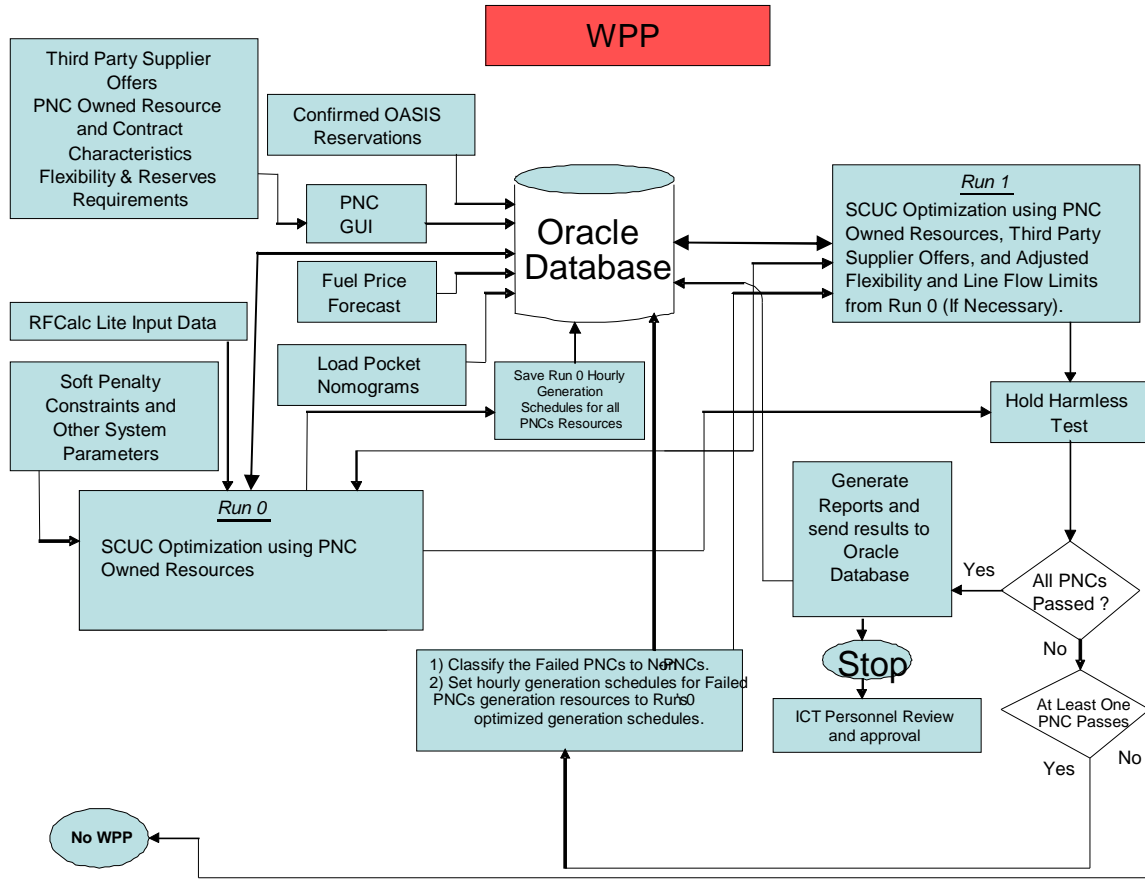
If an offer parameter submitted by a supplier is violated, but the offer nonetheless was selected by the model, that offer will be removed from the input file and optimization Run 1 will be re-run.

8.4 Sequence and Iteration of SCUC Runs (0 & 1)

There will be a minimum of 2 SCUC model runs performed each week. These runs may need to be repeated if either (i) a WPP Participant fails the “Hold Harmless” test (section 9.1), or (ii) a Third Party Supplier’s offer parameter is violated and must be removed (section 8.3).

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The flow diagram below depicts the process for running the WPP SCUC model iterations and the main data items that are needed for each of the two SCUC model runs that form the WPP, as well as the tests performed on the SCUC run output that trigger a re-running of the model.



9 Hold Harmless Provision

9.1 Overview of “Hold Harmless” Provision in the WPP

The intent of the “Hold Harmless” provision of the WPP is to protect WPP Participants from any possible increase in projected production costs that may occur as a result of participating in the WPP. The Hold Harmless test is a check occurring at the end of Run 1 that compares the projected production costs of a WPP Participant including its WPP purchases with the projected costs for the WPP Participant prior to participation. If the result of the Hold Harmless test is that a WPP Participant’s production costs are projected to increase due to participation, then that WPP Participant and its offers are removed from the WPP and the WPP Participant is modeled as a Non-PNC and is not granted transmission service in the WPP.

9.2 Formula for Hold Harmless Test

A WPP Participant is deemed to have failed the “Hold Harmless” test if the projected production costs for the WPP Participant as calculated in Run 0 is less than the projected production costs from Run 1 of the WPP optimization.

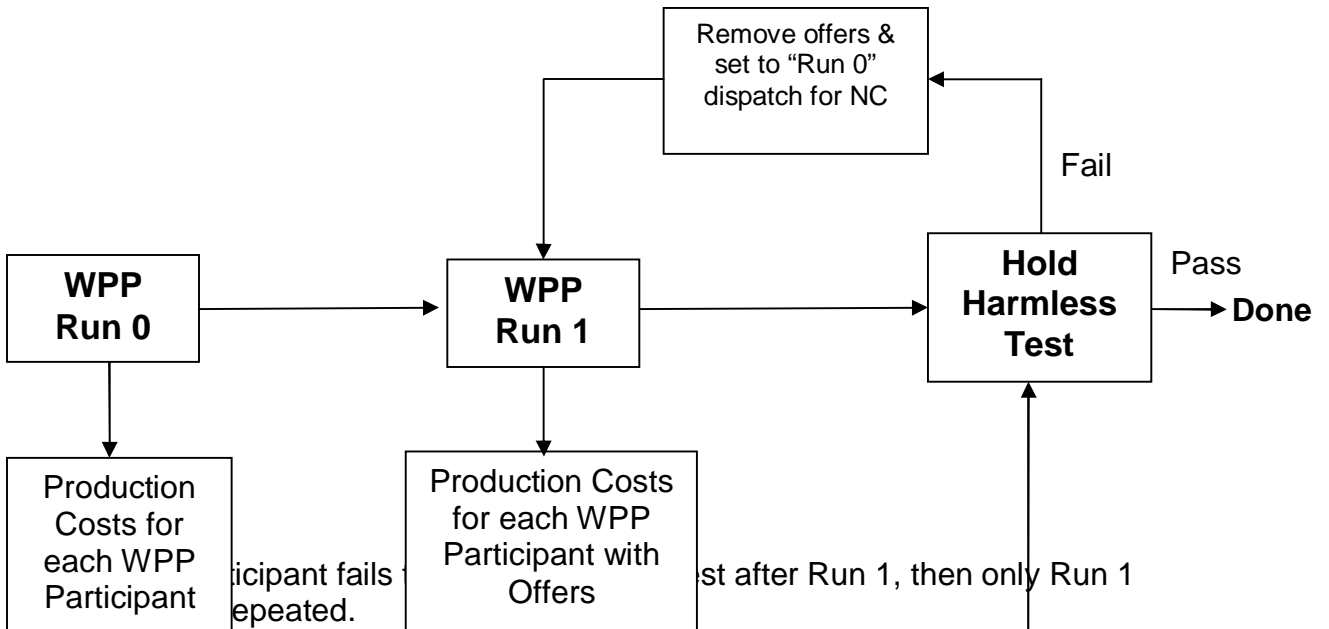
Algebraically, the test is:

If: Production Costs (Run 0) < Production Costs (Run 1)

Then: the WPP Participant is deemed to be not participating for that WPP Operating Week.

Simply put, if the WPP Participant’s net costs increase as a result of participation in the WPP, they will be withdrawn. As with any other Network Customer, the WPP Participant failing the “Hold Harmless” test can still contract for energy from a Third Party Supplier, but transmission service will need to be reserved in the AFC process.

9.3 Flow Diagram for the Hold Harmless Test



9.4 Treatment of A WPP Participant That Fails the Hold Harmless Test

A WPP Participant that fails the hold harmless test will be treated as a Non-PNC and none of the offered-in resources for that party will be modeled. The party's existing resources will have been modeled in Run 0 and the resulting dispatch will be used in the subsequent WPP runs. The WPP Participant will be notified that it "failed" the hold harmless test through the PNCUI.

ATTACHMENTS

Attachment 1

**Entergy Business Practice applicable to Generating Facilities
Offering Automatic Generator Control Service
in the Weekly Procurement Process
June 26, 2007**

A Third Party Supplier that wishes to offer (a) Automatic Generator Control (AGC) service, (b) Ancillary Service Schedule 5 ,Operating Reserve – Spinning Reserve Service, and/or (c) Ancillary Service Schedule 6, Operating Reserve – Supplemental Reserve Service (Service Schedules 5 and 6 collectively, Operating Reserves) via the Weekly Procurement Process (WPP) must satisfy one of two requirements related to deliverability.

- A generating facility [not an individual generating unit(s)] that has been granted Network Resource Interconnection Service (NRIS) consistent with the provisions of FERC Order No. 2003 and the Entergy Open Access Transmission Tariff (Tariff) will be deemed deliverable for the stated capacity in the applicable Large Generator Interconnection Agreement (LGIA). Transmission service will not be required up to the stated capacity in the LGIA in order to offer AGC service or Operating Reserves from the NRIS resource.
- A Third Party Supplier intending to offer AGC service and/or Operating Reserves in the WPP from a generating facility that is not an NRIS resource shall notify the applicable Participating Network Customer (PNC), no later than Tuesday at Noon Central Prevailing Time prior to the WPP Operating Week, that they intend to make an offer that includes AGC service and/or Operating Reserves and the maximum amount (MW) of that offer (maximum AGC/Reserves and Energy in an hour) and the source of the offer. The PNC will request, via OASIS and on a non-confirmed basis, weekly network service for the period of the upcoming WPP Operating Week from the generating facility. The Third Party Supplier will be notified of the status of the requested network service by the PNC. If transmission service is granted through the AFC process the IPP will be able to offer energy and AGC/Operating Reserves service, up to the amount of the granted weekly network service, in its WPP offer to the specific PNC. If the requested network service is denied, the Third Party Supplier will only be able to offer energy and flexibility to the PNC in the WPP. If the requested network service is counter-offered at a lesser amount, then the Third Party Supplier can offer energy and AGC/Operating Reserves service only up to the counter-offer amount, or offer energy and flexibility to

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the PNC in the WPP. If the requested network service is granted at an amount less than the amount of energy and AGC/Operating Reserves service offered to the PNC, all AGC/Operating Reserves offers will be converted to energy only offers. The PNC will provide an attestation form (consistent with provisions of the Tariff) by the time the network service is confirmed. Requests for network service that are associated with offers to provide AGC and/or Operating Reserves service to a PNC will remain in the queue in an accepted, but not confirmed mode. The IPP will then provide pricing terms and operating characteristics for the energy and AGC/Operating Reserves service offered to the PNC by the deadline established by the PNC. If selected in the WPP, the PNC will contract with the IPP and will be able to dispatch the unit in accordance with the terms and conditions of the offer. Additionally, the PNC will be able to dispatch the generating facility up to the capability of the weekly network service granted prior to the WPP Operating Week through the AFC process.

Additional Requirements

In order to provide AGC service to a PNC under either Options 1 or 2 above, the generator must comply with requirements of the Transmission Provider and PNC regarding among other things metering, communications, and modifications to EMS programming. These requirements include, but are not limited to, the provision of a redundant communications path for the AGC signal to Entergy Transmission at the generating facility's cost. In the event the communication path is not available, AGC service will cease.

Allocation of Generation Output to AGC and/or Schedules

The allocation of generation output to AGC and/or schedules shall be determined in accordance with the Tariff.

Attachment 2

**Manually Create TSRs for
AGC/OPERATING RESERVES WPP OFFERS**

1.0 **RESPONSIBILITIES**

- 1.1 Third party suppliers are responsible for notifying the Participating Network Customers (PNC) if they want to submit an Automatic Generation Control (AGC)/Operating Reserves offer to the WPP.
- 1.2 PNCs are responsible for entering the AGC/Operating Reserves TSRs into OASIS and confirming or withdrawing the AGC/Operating Reserves TSRs.
- 1.3 Independent Coordinator of Transmission (ICT) personnel are responsible for accepting, counter-offering or denying the AGC/Operating Reserves TSRs.

2.0 **DETAILS**

NOTE

Other than the fact that a reservation will not be created by the ARS system for these offers they are treated the same as any other WPP offer.

If a third party supplier chooses to make an offer bundled with AGC/Operating Reserves from a facility, they can submit multiple offers, but the sum of the MW's of energy and AGC/Operating Reserves offered cannot exceed the MW's of transmission service granted through the AFC process prior to the WPP.

- 2.1 The third party supplier must notify the PNC by noon on Tuesday that they will make an offer that is bundled with AGC/Operating Reserves into the WPP for the upcoming WPP operating week, and supply the following information:
 - The generator that will provide the service.
 - The maximum MW of the offer.
- 2.2 The PNC must perform the following by 3:00 P.M. on the Tuesday prior to the upcoming WPP operating week:
 - Request on a non-preconfirmed basis, a weekly Network Reservation for the requested MW amount on the OASIS.
 - Select the "AGC" service type on the weekly Network Reservation.

NOTE

If the OASIS request is “Accepted”, the PNC may submit an AGC/Operating Reserves offer to the WPP by noon on Wednesday for the capacity granted on the reservation.

If the requested network service is counter-offered at a lesser amount, then the PNC can submit an AGC/Operating Reserves offer only up to the counter-offer amount.

If the requested network service is denied, the PNC may upload one or more non-AGC/Operating Reserves offers from that facility.

- 2.3 IF the OASIS request is approved or counter-offered and the PNC does not submit a corresponding AGC/Operating Reserves offer, THEN the PNC must withdraw the reservation from OASIS by 2:00 P.M. on Wednesday prior to the upcoming WPP operating week.
- 2.4 The PNC must perform one of the following by 5:00 P.M. on Thursday prior to the upcoming WPP operating week.
 - Confirm the WPP AGC/Operating Reserves OASIS Network Reservations for the AGC/Operating Reserves offers that were accepted in the WPP.
 - Withdraw the WPP AGC/Operating Reserves OASIS Network Reservations for the AGC/Operating Reserves offers that were rejected in the WPP.
- 2.5 When the reservation is confirmed the PNC shall provide an attestation form consistent with the provisions of FERC order 890-A.
- 2.6 IF the AGC/Operating Reserve offer actually submitted by the PNC is for a maximum amount less than the amount approved by the ICT in the OASIS request, THEN the PNC will validate the OASIS request and request the ICT to undesignate an amount down to the maximum amount of the offer.

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- 2.7 When the customer has submitted the information through the PNCUI, then Weekly Operations personnel will process the offer in the same manner as all other WPP requests.

ATTACHMENT 3

Third Party Offer Input Verification Procedure

1 Purpose

The ICT WPP Group will, in accordance with this procedure, provide to each Third Party Supplier participating in the WPP its offer input data that was received by the WPP software.

2 Procedure¹

1. Third party suppliers contracting with EMO enter the details of their WPP Offer into Entergy's Power Offer Website (EPOW) by 10:00 AM on Wednesday.
2. The third party supplier submits the WPP Offer data into EPOW.
3. An email notification is generated by EPOW to the third party supplier when the WPP Offer data is successfully received into EPOW.
4. A qualifying² WPP Offer is passed to the WPP over the Participating Network Customer User Interface (PNCUI).
5. If the third party supplier wants to receive the ICT WPP Offer input verification information, the third party supplier must forward the EPOW email to the ICT WPP Group (ICTWPP@spp.org) by 1:00 PM on Wednesday. The third party supplier must also include email and telephone contact information on the forwarded email.
6. The ICT WPP Group exports the third party supplier WPP Offer input data from the PNCUI. The data export software stores the WPP Offer input data for each source in a separate file. The files are saved each week on the WPP secure directory. The file name contains the source name and the date of the WPP Operating Week.
7. The ICT WPP Group uses the "Offer Number" and "Source" data from the EPOW emails to identify the correct WPP Offer input data file(s) to send to the third party supplier.

¹ The specifics of this process are only applicable to WPP Offers submitted to the EMO. The process for WPP Offers submitted by other Participating Network Customers may be different.

² See Section 3.3.3 of Attachment V.

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8. By 12:00 PM on Friday, The ICT WPP Group emails the WPP Offer input verification information to the third party suppliers that forwarded their EPOW notification emails to the ICT WPP Group.

Attachment 4

WPP Pmax Flowgate and Tie Cap Validation Process

1.0 **RESPONSIBILITIES**

- 1.1 Weekly Operations personnel are responsible for:
 - 1.1.1 Following the process outlined in this procedure.
 - 1.1.2 Verifying with the ICT that a source plant has exceeded plant capacity based on all reservation offers.
 - 1.1.3 Notifying the PNC when a third party offer is removed due to a Pmax Flowgate oversell, or a Tie Cap limit oversell.
- 1.2 PNC shall be responsible for:
 - 1.2.1 Notifying third party suppliers that their offer was removed and informing them that Weekly Operations must be contacted with any questions regarding the removal of the offer.

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2.0 DETAILS

2.1 PMAX FLOWGATE VALIDATION

NOTE

The validation logic indicates when Pmax Flowgate limits are violated as a result of the WPP. The Pmax Flowgate limits are stored in the Market Manager Entity Manager.

Weekly operations shall verify with the ICT that the indicated oversell is valid prior to removal.

2.1.1 IF the following conditions exist:

- A PNC has uploaded a third party offer that caused the:
 - Sum of the Confirmed Network Reservations plus
 - Sum of Confirmed PTP Reservations plus
 - Sum of the third party offers
- All with the same source, to exceed the plant's Pmax Flowgate Limit,

THEN WO shall perform the following:

- 1) Remove all third party offers from the oversold plant prior to beginning optimization runs.
- 2) Send an email to the PNC by 2:00 p.m. on Wednesday identifying the offers that were removed and the reason for the removal.

2.2 TIE CAP VALIDATION

NOTE

The validation logic indicates when Control Area Interface Limits (Tie Cap) are violated as a result of the WPP. The Tie Cap limits are stored in the Market Manager Tie Interface.

Weekly operations shall verify with the ICT that the indicated oversell is valid prior to removal.

2.2.1 IF the following conditions exist:

- A PNC has uploaded a third party offer that caused the:
 - Sum of the Confirmed Network Reservations plus
 - Sum of Confirmed PTP Reservations plus
 - Sum of the third party offers
- All with the same Point Of Receipt (POR), to exceed the Tie Cap Limit,

THEN WO shall perform the following to ensure Control Area **EXPORT** Tie Caps are not oversold:

- 1) Remove all third party offers that Impact the violated Tie Cap prior to beginning optimization runs.
- 2) Send an email to the PNC by 2:00 p.m. on Wednesday identifying the offers that were removed and the reason for the removal.

2.2.2 IF the following conditions exist:

- A PNC has uploaded a third party offer that caused the:
 - Sum of the Confirmed Network Reservations plus
 - Sum of Confirmed PTP Reservations plus

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- Sum of the third party offers
- All with the same Point Of Delivery (POD), to exceed the Tie Cap Limit,

THEN WO shall perform the following to ensure Control Area **IMPORT** Tie Caps are not oversold:

- 1) Remove all third party offers that Impact the violated Tie Cap prior to beginning optimization runs.
- 2) Send an email to the PNC by 2:00 p.m. on Wednesday identifying the offers that were removed and the reason for the removal.

Attachment 5

Treatment of Transmission Must Run Units and Generation Must Run Units

A WPP Participant may adjust its resource availability in the WPP to reflect transmission outages and unit test schedules. In particular,

- Transmission Must Run
 - A request to model Transmission Must Run (TMR) units in the WPP due to transmission outages must be submitted to the ICT no later than 1 p.m. CT on Wednesday for the current WPP Operating Week in order to provide enough time for the ICT to evaluate each request. The request must identify the most limiting thermal or reactive constraint causing the TMR. For thermal constraints, the request must identify the specific factors that would prevent modeling the limiting flowgate(s) in the WPP from adequately addressing the issue. The ICT will then notify Weekly Operations of its recommendation based on the evaluation of each TMR request.
 - To the extent Weekly Operations takes any actions inconsistent with the ICT's recommendation, the ICT will report the same to applicable regulators.
 - As long as the TMR order remains in effect, the TMR will be included in the WPP. If the TMR order is cancelled, then Weekly Operations will also modify the WPP inputs to match the change in a must run order.
 - Thus, in all cases, if the Entergy transmission function has given a TMR order to EMO to must run a resource, that TMR will be modeled in the WPP as long as that order from the Entergy transmission function stands. The ICT assessment does not cancel or modify the TMR order from the Entergy transmission function to EMO. Only the Entergy transmission function can modify or remove a TMR order that has been issued to EMO. Weekly Operations will only modify or remove a TMR order from the WPP inputs if the Entergy transmission function has, in fact, cancelled a TMR order.

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- Generation Must Run
 - Until such time as the PNCUI can accept testing must run data, a WPP Participant shall notify Weekly Operations and the ICT using the Off-Oasis Protocol email of specific unit testing when acknowledging the submittal of RDF files. A WPP Participant will inform Weekly Operations and the ICT of its plans no later than Tuesday 3:00 PM. However, the WPP Participant will make reasonable efforts to provide that data and the unit test schedules by Tuesday 12:00 noon. The WPP Participant may submit modifications to the unit test schedules any time prior to Wednesday noon CT.
 - At such time as the PNCUI can accept testing must run data, the PNCUI will be used to notify WO and the ICT of specific unit testing. No schedules will be required at that time.
 - WPP Participants will provide an explanation of the type of testing and an hourly must run schedule at the time they notify Weekly Operation and the ICT that data has been submitted. For each Generation Must Run (GMR), a WPP Participant will reflect any changes to any GMR unit's operating characteristics (e.g., minimum run time) in the RDF file.
 - Weekly Operations shall enter the GMR unit test schedule into the Market Manager (MM), if an automated process is not instituted.