# ERS Technical Workshop

April 4, 2012

- **ERS Generators**
- **Standard Contract Term and Renewals**
- **New ERS Submission Form**
- **New Unavailability Form**
- **New Award Notification Form**
- **QSE Portfolio Performance**
- **Suspension Changes**
- **Other Small Changes**

# New Terminology

- **ERS – Emergency Response Service**
- **ERS Resources – two types**
  - ERS Loads (same as existing program)
  - ERS Generators (new)
- **Standard Contract Term – the current 4 month periods**
  - February – May
  - June – September
  - October - January
  - Standard Contract Term is comprised of one or more Contract Periods
-

- **ERS Generators provide the service by injecting power onto the ERCOT grid**
  - Backup generators that do not inject to the grid are not included (they can still participate in ERS Loads)
- **May be aggregations of multiple sites**
- **Metering Required**
  - Interval TDSP meters that measure imports from and exports to the ERCOT
  - Separate meter measuring the generator output
- **TDSP interconnection agreement required**
- **ERS Generators – two types**
  - Self-Serving
    - Are generally operating and supplying some or all of the premise load
    - Provide ERS by increasing generator output
  - Non-Self-Serving
    - Are generally not operating
    - Provide ERS by turning on and operating

# ERS Generators   (continued)

- **ERS Generators can only be comprised of generators**
- **Load at a premise containing a generator participating as an ERS Generator can also participate in an ERS Load**

Example 1
- Business as Usual
  - 5 MW Facility load
- During an event
  - 1 MW export to grid

- Premise could contribute 5 MW as ERS Load, and
- 1 MW as ERS Generator (Self-serving)
- Both resource types would be needed to provide 6 MW

- **ERS Generators can only be comprised of generators**
- **Load at a premise containing a generator participating as an ERS Generator can also participate in an ERS Load**

Example 2
- Business as Usual
  - 5 MW Facility load
  - 2 MW from generator
  - 3 MW from ERCOT grid

- During an event
  - 4 MW facility load
  - 5 MW from generator
  - 1 MW export to grid

- Premise could contribute 3 MW as ERS Load, and
- 1 MW as ERS Generator (Self-serving)
- Both resource types would be needed to provide 4 MW

# Standard Contract Term and Renewals

- **Standard Contract Term – the current 4 month periods**
  - February – May
  - June – September
  - October - January
  - Standard Contract Term is comprised of one or more non-overlapping Contract Periods

- **If one or more ERS Resources exhausts its obligation during a day, the Contract Period ends that night at midnight for all awarded Resources**
  - If some Resources have not exhausted their obligation, they will automatically be renewed in the subsequent Contract Period
    - Will carry over the remainder of their 8-hour obligation
  - ERCOT may or may not renew the obligation for Exhausted Resources depending on need and available money under the cost cap
  - ERCOT may or may not renew specific time periods
  - Resources that have selected 'Yes' as the renewal option on the Offer Form will participate in the renewal contract period if ERCOT elects to activate it

- **ERCOT will notify QSEs of renewals prior to the start of a Renewal Contract Period**
  - Notice will include Resource Name, Time-periods, and Obligations
- **ERCOT will post Award Notification Forms by the end of the third business day in the renewal contract period reflecting all Resources obligated during that contract period**

- **QSEs may revoke the renewal option for Resources obligated during a renewal contract period**
  - Revocation is not allowed for the initial contract period
  - Revocation is only allowed for Resources that were exhausted in the prior contract period
  - Revocation means the Resource will be obligated during the current renewal contract period, but will not be renewed for any subsequent contract periods
  - Notice to revoke must be submitted to ERCOT via email by the end of the second business day of the renewal contract period

# New ERS Submission Form

- **Key Points**
  - New email ERS@ERCOT.COM will be activated on April 9
    - Email to the old address will be forwarded to the new email address for a while
    - Start using the new address April 9 to avoid any lost communication
  - Version Number (12.2) changed … submissions on old forms will be rejected
    - Pre-populated forms on the new version will be provided
  - Read Affirmations … they are different
    - First - new
    - Second - not new
    - Third - new (generators)
    - Fourth - not new
    - Fifth – new
  - Remember …. The minimum offer will be 0.1 MW!!!

- **Review Form**

# New ERS Submission Form

| ERID Number | Renewal Opt In | Resource Type | ERS Time Period | Include Time Period? | Declared Self-Serve Capacity | Declared Injection Capacity | Capacity Offer (MW) | Price ($/MW/hr) | Maximum Base Load (MW) | MW Tied Offers | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Business Hours 1 | | | | | | | | |
| Resource Name | | Baseline | Business Hours 2 | | | | | | | | |
| | | | Business Hours 3 | | | | | | | | |
| | | | Non Business Hours | | | | | | | | |
| ESI-ID | Sub Metering | Unique Meter ID | LR at this Site? | LR Participating in AS Market? | Site Owner Controlling Entity | Site Name | Site Address (street) | Site Address (city) | Zip Code | TDSP Interconnection Agreement | Year of Agreement |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

- **Key Points**
    - The Unavailability Submission Form will continue to be used for ERS Loads
    - Will also be used for ERS Generators to inform ERCOT about
        - Planned Maintenance
        - Self-test Schedule (for Non-Self-Serving Generators)
            » Will the self-test include use of a load-bank (we interpret this to mean no export to the grid)
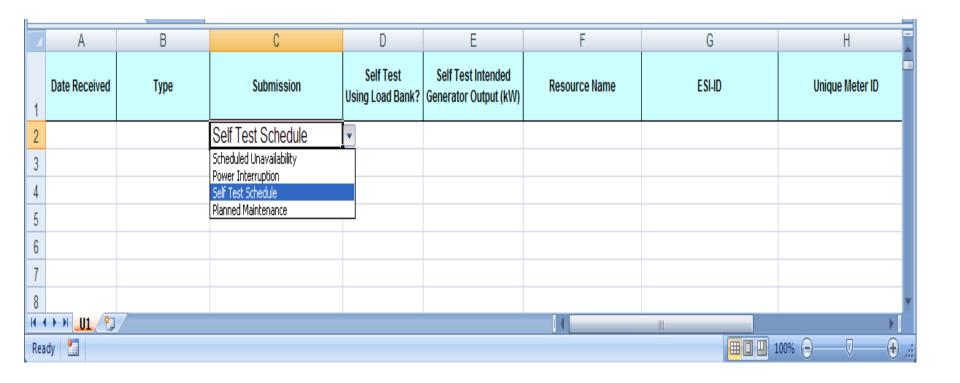            » Generator output capacity (registered on the generator output meter)
- **Some reminders**
    - The form under 'Type' allows for
        - New Submissions
        - Revisions
            - Must match a previous new submission
            - Can revise either start date/time or stop date/time … not both!
            - Cannot revise a revision … subsequent revisions are to the original
        - Cancellations
            - If you need to revise both start and stop, submit a cancellation for the previous submission and a new submission for the different dates
- **Review Form**

# New Unavailability Form

# New Award Notification Form

- **Review Form**
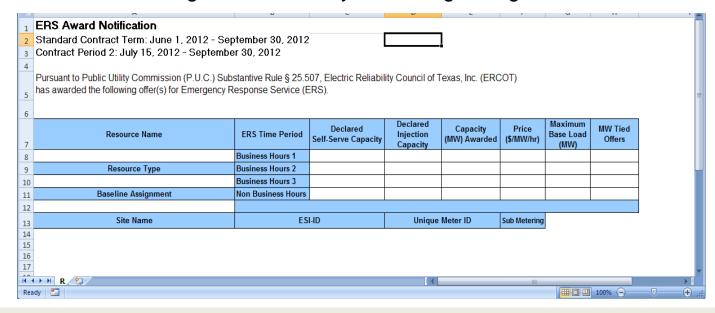- **Key Points**
  - ERCOT will post the Award Notification form prior to the beginning of the Standard Contract Term, and
  - After the beginning of each renewal contract period to officially notify QSEs of which Resources are obligated and for which time-periods
  - Note: ERCOT is discontinuing the use of Appendix A and renaming Appendix B as the ERS Award Notification
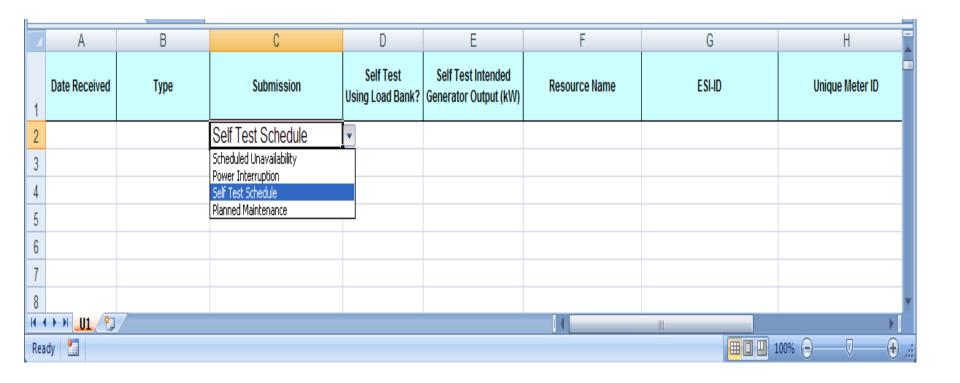  - QSEs affirm, when submitting offers, that they have a signed agreement with the resource

# New Unavailability Form

# QSE Portfolio Performance

- **Availability**
  - Default Loads: Percent of obligated hours for which actual load exceeds obligation
  - Alternate Loads: Average load excluding MBL divided by Obligation
  - Generators: Percent of hours the generator is available
  - Self-serving generators available except when it is
    - generating more than its 'declared self-serve value'
    - injecting more than its 'declared injection capacity'
    - Is generating 0 MW and is importing energy from ERCOT
  - Non-self-serving generators available except when it is
    - Generating 0 MW during a self-test and continuing until generating at intended level for one full interval
    - Generating energy outside of a self-test period

  - Availability threshold for passing is lowered for contract periods shorter than 50% of the Standard Contract Term

# QSE Portfolio Performance

- **Availability Factor Calculations Exclude:**
  - Allowed unavailability / planned maintenance
    (5 business day advance notice up to 2% of obligated hours)
  - EEA hours
  - 10 hours of recovery after deployments and ERCOT tests
  - Hours following exhaustion
  - Hours with T & D system outages
  - Hours of Self-test Schedule (for Non-Self-Serving Generators)

# QSE Portfolio Performance

- **Event Performance Factor:**
  - (Base MWh – Actual MWh) / Obligation

  - Alternate Loads: Base MWh = Obligation + Max Base Load

  - Default Loads: MWh = Baseline estimate of business as usual load

  - ERS Generator: Base MWh = Net energy injected to ERCOT grid
    - Self-serve generator Actual MWh = Declared injection capacity
    - Non-self-serve generator Actual MWh = 0

# QSE Portfolio Performance

- **Resources will be settled using the QSE portfolio level availability and event performance factors**
  - If the portfolio performs at or above 100%, it will be paid for its entire obligation

- **A single availability and event performance factor for the QSE will be calculated across all contract periods in the standard contract term**

- **Review example portfolio calculations**

# Suspension Changes

- **Resources will only be evaluated for suspension if the QSE portfolio fails availability and/or event performance (less than 0.95)**

  - If QSE fails availability performance, resources that have availability factors below 0.85 will be suspended for one standard contract term

  - If QSE fails event performance, resources that have event performance factors between 0.75 and 0.95 will be suspended for one standard contract term

  - If QSE fails event performance, resources that have event performance factors between 0.30 and 0.75 will be suspended for two standard contract terms

  - If QSE fails event performance, resources that have event performance factors below 0.30 will be suspended for three standard contract terms

  - If a Resource or QSE has a first full interval performance factor of less than 0.95 they will be deemed to have failed to meet the 10-minute deployment requirement

- **ERS Split Deployment**
  - Allowing for more than two groups
  - Will rotate group order according to the number of groups set up
- **Eliminating Non-IDR Option for ERS**
  - No interest thus far
  - Advanced meters are eliminating the need
- **Generator Data Format**
  - Interval data formats currently posted should work in competitive areas
  - ERCOT will post a format for sites in NOIE areas with all three channels of meter data

# Questions?