

Demand Response Programs

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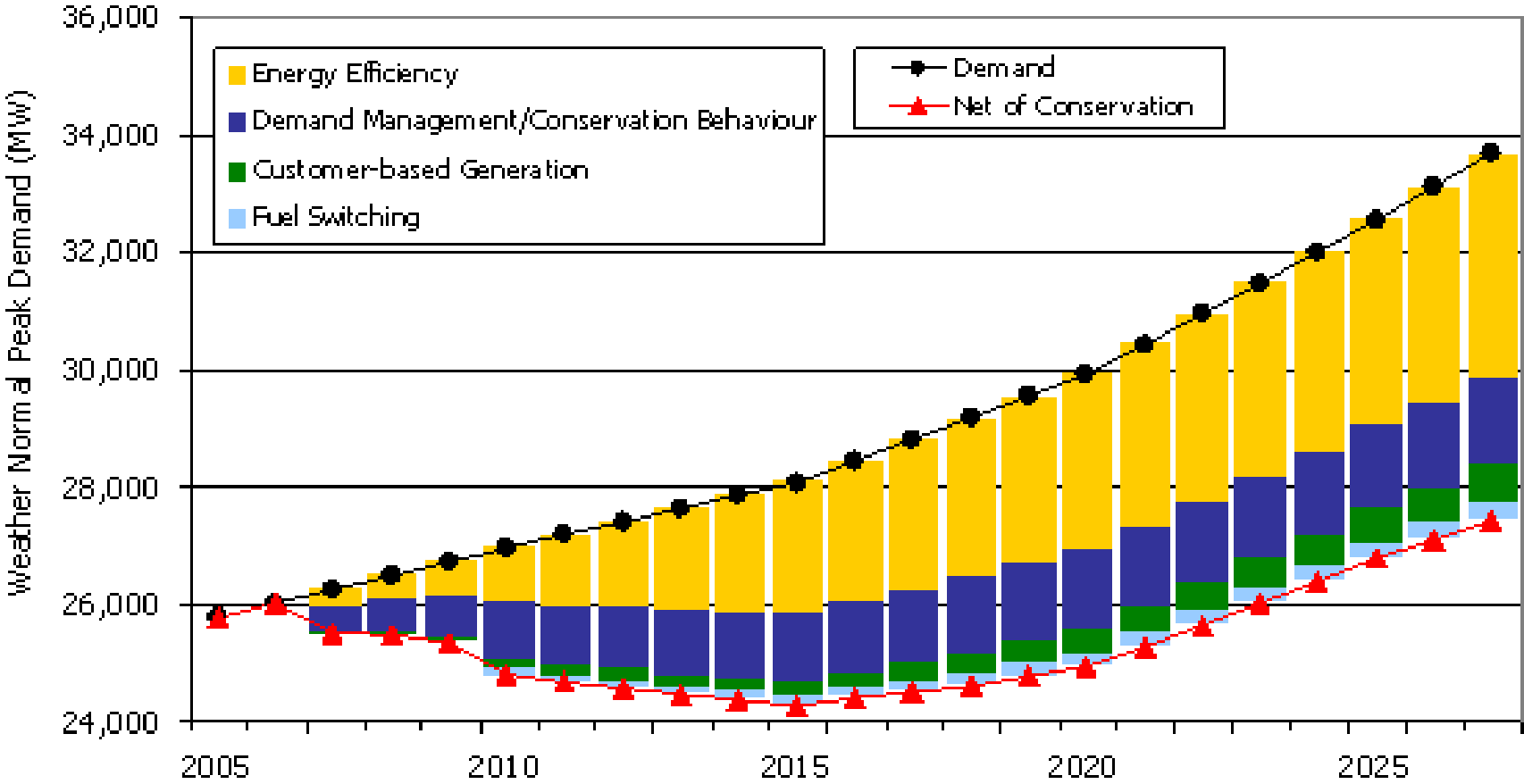
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Programs

Oct. 29th, 2007

Demand Response Programs

- Developed under the authority of the Minister of Energy's June 2005 Demand Management, Demand Response and High Efficiency Combined Heat and Power Supply Directive to the OPA to procure 250 MWs of Demand Response
- Consistent with system planning requirements
- **OPA Approach:**
 - Phased Market-based Demand Response program
 - Develop complementary collateral and outreach program to facilitate market development

Contribution of Demand Response



Demand Response 1

DR1 Program

- Contract Term: Open...but subject to 60 days notice by either party.
- Participation is voluntary. In spite of contracted MW amount, MW committed to each activation is voluntary.
- Participation over all seasons.
- Payment made is equal to the product of strike price and MW of demand response.

Eligibility

- Project must be a minimum of .5MW but not greater than 100MW.
- Load interruption, load shifting or generation qualify for participation.
- Must demonstrate the capacity of the project to curtail by the contracted amount once per season.

Program General

- Voluntary activation by the participant upon the strike price being exceeded by the three hour pre-dispatch price.
- For each activation, the participant can remain off line for 3 hours regardless of the pre-dispatch price in hour 2 and 3.
- Each month prior to a dispatch month, the OPA will confirm its Floor Price, the participant then confirms its strike price offer $>$ floor price, followed by OPA acceptance or rejection of the strike price offer.
- Participant must confirm intent to activate the hour prior to activation hour.

Rates

- Floor prices \$100 Summer, \$115 Winter and \$105 Shoulder Seasons.

Demand Response 2

Draft

DR2 Program

- Contract terms of 1, 3 or 5 years.
- Must commit to 95% Reliability and timely communications
- Option to be available Summer and Winter, or all year.
- Actual dispatch is pre-scheduled for same pre-determined 4 or 8 hours per business day between 8am and 8pm.
- Availability Payment to be available, and Utilization Payment for actual delivery based upon guaranteed rate differential between On-Peak and Off-Peak Periods.

Eligibility

- Participants must have enforceable rights over Facilities.
- Load Interruption equipment qualify; however generation does not qualify.
- Must have a minimum 5MW (minimum .5MW per site) to participate in DR.
- Aggregators can participate.
- Can have a monthly variation in DR participation.
- Must not double dip; ie cannot participate in DR3

Program General

- Must reduce MW, MWh during each 4/8 hour period and demonstrate monthly a load shift occurred from the On-Peak to Off-Peak Period.
- Measured for reduced MW each hour, MWh over the dispatch period, and Load Shift over a month period.
- 90% Performance Reliability for shoulder seasons and 95% during summer and winter.

Availability Rates (\$/MW)

	1 Year Term	3 Year Term	5 Year Term
Summer/Winter			
4 Hour On-Peak	\$30.00	\$60.00	\$120.00
8 Hour On-Peak	\$22.50	\$45.00	\$90.00
Shoulder Periods			
4 Hour On-Peak	\$15.00	\$30.00	\$60.00
8 Hour On-Peak	\$11.50	\$22.50	\$45.00

Utilization Guaranteed Differentials

On Peak Contract Periods	Summer	Winter	Shoulder
8 am to 12 noon	\$30.00	\$20.00	\$25.00
12 noon to 4 pm	\$40.00	\$10.00	\$10.00
4 pm to 8 pm	\$30.00	\$30.00	\$25.00

Demand Response 3

DR 3 Program

- Contract terms of 1, 3 or 5 years.
- Must commit to 95% Reliability and timely communications
- Must be available approximately 1600 hours per calendar year for possible dispatch.
- Option to select 100 hours or 200 hours of dispatch per calendar year with each dispatch 4 hours in duration.
- Actual dispatch may be up to the hours within the Option
- Availability Payment to be available, and Utilization Payment for actual delivery.

DR3 - Eligibility

- Direct Participants must own participating Facilities.
- Aggregators must have enforceable rights over Facilities.
- Load Interruption and Generation Projects qualify.
- Directs must have a minimum 5MW in DR to participate.
- Aggregators must have a minimum 25MW in DR to participate.
- Seasonal variation requirement: 80% winter; 66% shoulder period.
- Must not double dip; ie NUGS

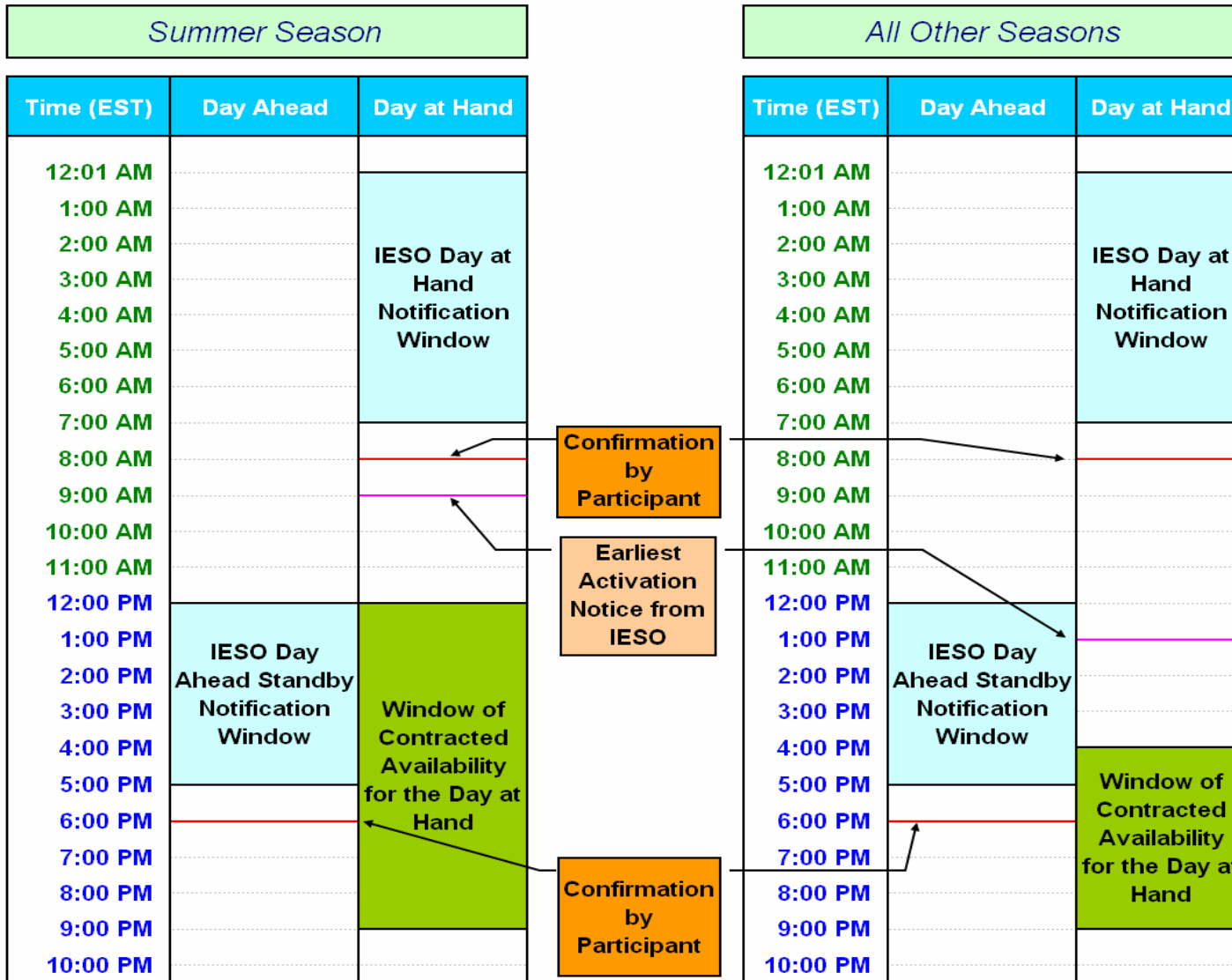
Program General

- 95% Reliability every Interval.
- Must demonstrate Availability to curtail based on 4 hours pre-dispatch or 4 hours pre-dispatch notice.
- When activated for demand response, participant must reduce contracted MW from the Baseline as measured on an Interval basis and must reduce MWh as measured on a dispatch period basis.

Dispatch

- Dispatch: must always occur within Scheduled Hours of Availability.
- Types of Standby Notifications: Fixed and Open
- Fixed Standby Notification (Contracted Obligation): is for Monthly Contracted MW for Contracted Dispatch Period.
- Open Standby Notification (Optional): for up to the lesser of 15MW or 15% of the Monthly Contracted MW, in addition to contracted obligation...and for the maximum duration of the Scheduled Hours of Availability.

DR3 - Curtailment



Program Rates

Term in Years with (Option)	1(A)	3(A)	5(A)	1(B)	3(B)	5(B)
Availability Rate \$/MW	35	50	65	40	60	80
Availability Rate with Premium	44	63	81	50	75	100
Availability Rate with Discount	18	25	33	20	30	40
Availability Rate Over-Delivery	10	10	10	10	10	10
Utilization Rate \$/MWh	200	200	200	200	200	200