



Calpine Proposal to Change NYISO Rules Regarding PURPA-Certified Generators to NYISO Staff and Stakeholders

Brett Kruse, VP-Market Design, Calpine Corp.



Background of PURPA



- The Public Utility Regulatory Policies Act (PURPA) was enacted by Congress in 1978 as part of the National Energy Act
- It was meant to promote greater use of renewable and efficient energy technologies and created the term “Qualified Facility” or “QF”
- The FERC was given responsibility to determine if a facility met PURPA standards and could become a QF
- Utilities were required to purchase unused electrical energy from facilities meeting the QF designation, and this energy was compensated at the current rate of system avoided cost



Current PURPA Status



- Reaffirmed by Congress in EPA 2005
- Still handled basically the same in regions without formal wholesale power markets, although the avoided cost rate structure and process may vary slightly
- In PJM, MISO, and NEPOOL (markets with current nodal designs), the cogenerator's are typically compensated at real-time LMP and are basically exempted from imbalance charges and other set point deviation penalties, unless other arrangements are made
- Both ERCOT's and Cal-ISO's proposed nodal market designs will also provide similar market structures, and thier current rules exempt QFs from deviation penalties and effectively provide the same abilities as Congress envisioned in 1978 such as compensation at the real-time price



Cogeneration Portfolio (present and former)



Plant Name	Location	Size (MW)	Config.	Non-Fired Steam Capacity (kpph)
Agnews	San Jose, CA	27	1x1	84.0
Auburndale	Auburndale, FL	150	1x1	190.0
Baytown	Baytown, TX	787	3x1	1080.0
Columbia	Columbia, SC	458	2x1	
Channel	Houston, TX	552	2x1	1100.0
Clear Lake	Pasadena, TX	350	3x2	1050.0
Corpus Christi	Corpus Christi, TX	380	2x1	
Carville	Saint Gabriel, LA	472	2x1	
Decatur	Decatur, AL	667	3x1	1200.0
Deer Park	Deer Park, TX	822	4x1	
Gilroy	Gilroy, CA	121	1x1	150.0
Greenleaf I&II	Yuba City, CA	99	1x1	208.0
Gordonsville	Gordonsville, VA	240	2x1	65.0
Gray's Ferry	Philadelphia, PA	150	1x1	1100.0



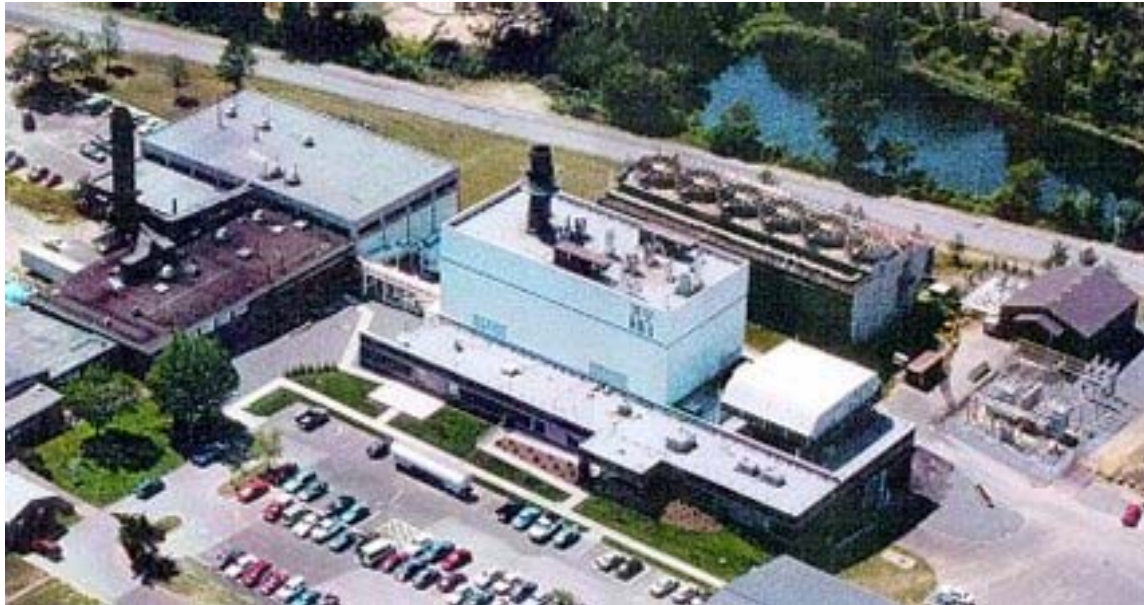
Cogeneration Portfolio (present and former)



Plant Name	Location	Size (MW)	Config.	Non-Fired Steam Capacity (kpph)
King City	King City, CA	114	1x1	
Kennedy Intl	Jamaica, NY	98	2x1	560.0
Los Medanos	Pittsburg, CA	472	2x1	200.0
Morgan	Decatur, AL	732	3x1	
Morris	Morris, IL	155	3x1	500.0
Newark	Newark, NJ	48	1x1	55.0
Pine Bluff	Pine Bluff, AK	184	1x1	540.0
Pasadena I&II	Pasadena, TX	772	3x2	1800.0
Parlin	Parlin, NJ	95	2x2	120.0
Pryor	Pryor, OK	38	4x3	240.0
Pittsburg	Pittsburg, CA	61	3x0	200.0
Stony Brook	Stony Brook, NY	45	1x1	280.0
Texas City	Texas City, TX	490	3x1	1050.0
Watsonville	Watsonville, CA	27	1x1	80.0



Example - Stony Brook Energy Center



Stony Brook, NY
45 MW
1x1 Simple Cycle (GE LM 6000)
Natural Gas
Cogeneration
Commercial Operation: April 1995



Uniqueness of NYISO



- Elsewhere, “Qualified Facility” or “QF” accreditation by the FERC is all that is needed to allow for the market to allow for QF treatment of a cogeneration facility, including:
 1. exemption from deviation penalties
 2. the ability to “put” residual electrical power to the grid in return for real-time LMP settlement



- NYISO tariff's treatment unfairly penalizes cogeneration facilities – already qualified by the FERC – that are designed and operated to follow industrial thermal host load requirements “behind the meter.” These facilities may have trouble staying on set point due to large steam swings and electrical swings by the host facility – the plant's first and main obligation is always to the host.
- NYISO's treatment unfairly prohibits cogeneration facilities from to placing locationally economic power on the grid when able to; the result is inherently uneconomic and unnecessarily raises prices to consumers.



Calpine proposes that the NYISO tariff undergo the necessary changes to correct the shortcomings noted, and:

- To allow for NYISO “Qualified Facilities” to be certified as such with the NYISO once they receive such certification by the FERC
- To allow “Qualified Facilities” to put residual power to the grid at any given time in exchange for RT LMP settlement



QUESTIONS?

