BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
AMENDMENTS TO	)	R18-20
35 ILL. ADM. CODE 225.233	)	(Rulemaking – Air)
MULTI-POLLUTANT STANDARDS	)	
(MPS)	)	

NOTICE OF FILING

PLEASE TAKE NOTICE that on this 16th day of February, 2018, I caused to be filed with the Clerk of the Illinois Pollution Control Board the Illinois Attorney General's Office Responses to January Hearing, a copy of which is hereby served upon you.

Respectfully submitted,

PEOPLE OF THE STATE OF ILLINOIS,

BY: LISA MADIGAN,
Attorney General of the State of Illinois

BY: /s/ Stephen J. Sylvester
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Dated: February 16, 2018

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CERTIFICATE OF SERVICE

I, STEPHEN J. SYLVESTER, an attorney, do certify that on February 16, 2018, I caused the Illinois Attorney General's Office Response to January Hearing and the Notice of Filing to be served upon the persons listed in the attached Service List by email for those who have consented to email service and by U.S. Mail for all others.

/s/ Stephen J. Sylvester
STEPHEN J. SYLVESTER

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R18-20
AMENDMENTS TO 35 ILL. ADM.	)	(Rulemaking-Air)
CODE 225.233, MULTI-POLLUTANT	)	
STANDARDS	)	

THE ILLINOIS ATTORNEY GENERAL'S
RESPONSES TO QUESTIONS RAISED DURING FIRST SET OF HEARINGS

Pursuant to the Hearing Officer Order issued on January 29, 2018, the Illinois Attorney General's Office, on behalf of the People of the State of Illinois ("People"), hereby responds to questions raised during the first set of hearings in this matter held on January 17-18, 2018. Specifically, the People respond to questions asked by Tanya Rabczak of the Illinois Pollution Control Board on January 18th. *See* Tr. 1/18/18, pages 83-84.

Question 1: "Do you understand how each unit gets to whatever capacity factor they actually get to?" Tr. 1/18/18, page 83, lines 12-14.

Answer: The capacity factor of a power plant is the ratio of its actual electricity production over a period of time to its potential production if it had been operating at full nameplate capacity continuously during that time. For example, taking the gross load of a unit in megawatt-hours for a particular year and comparing it to the megawatt-hours that would have been produced if the unit had run at its nameplate capacity in megawatts for 8,760 hours (365 days times 24 hours) results in the annual capacity factor of a unit expressed as a percentage.

How Dynegy's MPS units arrive at their annual capacity factors involves a series of choices first by Dynegy and then by the Midcontinent Independent System Operator's ("MISO") economic dispatch process. The process begins with Dynegy deciding what it wants the status of its units to be (*i.e.*, operational, mothballed, or retired). For each operational unit, Dynegy then decides how it wants to allocate the capacity of the unit (capacity is the promise of a power plant to be available

in the future). MISO offers several options. The capacity can be assigned to a bilateral contract, it can be assigned to a fixed resource adequacy plan, it can be offered by Dynegy into MISO's Planning Resource Auction, or it can remain uncommitted. If the capacity is committed and Dynegy receives a capacity payment, then Dynegy agrees to offer power from the unit into the energy market and to operate when called upon by MISO. *See, e.g.*, Testimony of Dean Ellis, Tr. 1/18/18, pages 146-47. If capacity is uncommitted, then Dynegy decides when to offer the plant into the market—which could be all the time, some of the time, or not at all.

When a unit is offered into the market, Dynegy decides at what price it is willing to generate power and that is Dynegy's "bid" into the market. MISO then selects resources according to lowest price until the demand is satisfied with all generators receiving the price offered by the last resource needed to meet the load (i.e., "the clearing price"). If Dynegy's bids are higher than those of other generators who are needed to fulfill demand, Dynegy's units will not be dispatched, will not run, and their capacity factors will be lower. Conversely, if Dynegy's units *are* selected, they will run and will increase their capacity factors and will be paid the clearing price for the power they generate (which will be at or above the price Dynegy offered pursuant to the process described above). If Dynegy wants to be as sure as it can that one or more of its units are dispatched by MISO, Dynegy can bid $0 or a similarly low amount to place its units as early as possible in the bid stack and they will be paid the market clearing price for the power they generate if they are selected.

Question: "Do you understand how and why the emission rates fluctuate year to year? For instance, what the Dynegy representatives were asking, how would 2016 would look compared to 2017 and '18 in gross capacity factor and emission rates factor?" Tr. 1/18/18, page 83, lines 14-19.

Answer: With respect to capacity factors, please see above for our explanation of how they are determined. Capacity factors can change year-by-year depending on the outcomes of the process described above. Exhibit 1 attached hereto contains ten years of capacity factor data for the current MPS units as calculated using the following methodology: the annual gross load of the unit in megawatt-hours (obtained from https://ampd.epa.gov/ampd/) divided by the unit's nameplate capacity (obtained from Form EIA-860 data) in megawatts times 8,760 (total number of hours in a year) (Formula: Capacity Factor in % = annual gross load in megawatt-hours ("MWh") / (MW nameplate capacity x 8,760). For the past three years, the annual capacity factors of the current MPS units, combined, have been 59% (2015), 55% (2016), and 57% (2017) (i.e. 57% average capacity over the past three years).

Emission rates are expressed in the MPS as the pounds of a particular pollutant emitted per million British Thermal Units ("mmBtu") of heat input. The MPS has standards for sulfur dioxide ("SO2") and nitrogen oxide ("NOx") that apply to *groups* of plants. Dynegy, however, decides what the emission rates of its *individual* MPS units will be because Dynegy decides what pollution controls to install and operate and what type of coal to burn at the units in order to meet legal requirements. These factors are what lead to how much pollution a unit produces per amount of coal that it is burning (*i.e.*, its heat input). And once these decisions are implemented, the emission rates should not change significantly unless the pollution controls are turned off or removed, new controls are put on, or Dynegy changes its coal supply. The tons of pollution and the tons of coal burned will go up and down depending on how much the unit is operated (*i.e.*, its capacity factor), but the *rate* should be static absent the changes just mentioned.

Question: "Do you understand who controls the capacity factor, who controls the emission rate and how? Can Dynegy decide which plant to run? Can Dynegy decide at which capacity

factor they run? Can they decide at which emission rate they run? What do they have to do to get to those?" Tr. 1/18/18, page 83, line 24-page 84, line 5.

Answer: As described in greater detail above, with respect to capacity factors, Dynegy decides the price at which it is willing to generate power from a given unit at a certain time, and MISO will dispatch that unit if the unit is selected in the bid stack. With respect to individual unit emission rates, Dynegy controls what these are based on what pollution controls are implemented and what type of coal is burned. Finally, with respect to MPS compliance and fleet-wide emission rates, Dynegy controls how this is achieved by managing the units that exist in each group, deciding what the individual emission rates of the units will be, and then deciding whether the units are offered into the market and at what price.

Dated: February 16, 2018

Respectfully submitted,

PEOPLE OF THE STATE OF ILLINOIS,
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Facility Name	Unit ID	2017 Gross Load (MW-h)	2016 Gross Load (MW-h)	2015 Gross Load (MW-h)	2014 Gross Load (MW-h)	2013 Gross Load (MW-h)	2012 Gross Load (MW-h)	2011 Gross Load (MW-h)	2010 Gross Load (MW-h)	2009 Gross Load (MW-h)	2008 Gross Load (MW-h)	Nameplate Capacity (MW)	2017 Capacity Factor	2016 Capacity Factor	2015 Capacity Factor	2014 Capacity Factor	2013 Capacity Factor	2012 Capacity Factor	2011 Capacity Factor	2010 Capacity Factor	2009 Capacity Factor	2008 Capacity Factor
Baldwin	1	4256973	3579945	3929009	3612677	4353264	4382095	4256142	4922426	4719810	4365766	625	78%	65%	72%	66%	80%	80%	78%	90%	86%	80%
Baldwin	2	4248869	4142070	3016142	4529481	4977489	4063944	4872441	5076725	3740462	4874545	635	76%	74%	54%	81%	89%	73%	88%	91%	67%	88%
Baldwin	3	0	2907612	4220738	4531695	4211091	4794276	5232122	3547576	4500586	4634595	635	0%	52%	76%	81%	76%	86%	94%	64%	81%	83%
Coffeen	1	2149649	1645863	1663873	2151742	1821705	1945318	2286431	2300356	1586382	2415664	389	63%	48%	49%	63%	53%	57%	67%	68%	47%	71%
Coffeen	2	3960975	3436013	3324374	3635208	3333747	3620176	3213509	3073162	2948670	3515473	617	73%	64%	62%	67%	62%	67%	59%	57%	55%	65%
Duck Creek	1	2166840	2338467	2363610	2477495	2766167	3075539	2327215	2827797	2137973	2482081	441	56%	61%	61%	64%	72%	80%	60%	73%	55%	64%
E D Edwards	2	1262963	1089069	1698538	1854000	1838296	1879308	1916844	1818425	1878918	1565992	281	51%	44%	69%	75%	75%	76%	78%	74%	76%	64%
E D Edwards	3	2046863	1938365	1475139	2111602	2302982	1937026	2332239	2446622	2390773	2187691	364	64%	61%	46%	66%	72%	61%	73%	77%	75%	69%
Havana	9	2848787	2671713	2115992	2850484	3153270	3023729	3290873	3356096	2280409	3060557	488	67%	62%	49%	67%	74%	71%	77%	79%	53%	72%
Hennepin	1	438327	416864	439325	459685	359877	515218	577749	573819	533447	397677	75	67%	63%	67%	70%	55%	78%	88%	87%	81%	61%
Hennepin	2	1378893	1158049	1246904	1379725	1411586	1808108	1804087	1868434	1775299	1339958	231	68%	57%	62%	68%	70%	89%	89%	92%	88%	66%
Joppa	1	875026	752282	956900	1312296	1292822	1260495	1418830	1456298	1424827	1151113	183	55%	47%	60%	82%	81%	79%	89%	91%	89%	72%
Joppa	2	801348	736600	871481	1320187	1256764	1233258	1194562	1397275	1318607	1516512	183	50%	46%	54%	82%	78%	77%	75%	87%	82%	95%
Joppa	3	685802	428451	840144	1247131	1186607	1102056	1361558	1341577	1365346	1497672	183	43%	27%	52%	78%	74%	69%	85%	84%	85%	93%
Joppa	4	530810	682622	921854	1333425	1267827	1225340	1437495	1439559	847003	1478670	183	33%	43%	58%	83%	79%	76%	90%	90%	53%	92%
Joppa	5	627033	382421	930759	1191697	1231189	1027743	1416709	1373654	1324612	1485316	183	39%	24%	58%	74%	77%	64%	88%	86%	83%	93%
Joppa	6	729089	476243	810991	1317637	1215881	1151848	1444091	1407797	1346374	1504067	183	45%	30%	51%	82%	76%	72%	90%	88%	84%	94%
Newton	1	3546555	2348892	2842906	3490220	3336394	3637379	3964715	4200305	4374462	4386205	617	66%	43%	53%	65%	62%	67%	73%	78%	81%	81%
TOTAL		32554802	31131541	33668679	40806386	41316958	41682856	44347613	44427903	40493961	43859554	6496	57%	55%	59%	72%	73%	73%	78%	78%	71%	77%