

Category	Item	Unit	Quantity	Price	Total	Notes
Section 1	1.00	1.00	1.00	1.00	1.00	
	1.01	1.01	1.01	1.01	1.01	
	1.02	1.02	1.02	1.02	1.02	
	1.03	1.03	1.03	1.03	1.03	
	1.04	1.04	1.04	1.04	1.04	
	1.05	1.05	1.05	1.05	1.05	
	1.06	1.06	1.06	1.06	1.06	
	1.07	1.07	1.07	1.07	1.07	
	1.08	1.08	1.08	1.08	1.08	
	1.09	1.09	1.09	1.09	1.09	
Section 2	2.00	2.00	2.00	2.00	2.00	
	2.01	2.01	2.01	2.01	2.01	
	2.02	2.02	2.02	2.02	2.02	
	2.03	2.03	2.03	2.03	2.03	
	2.04	2.04	2.04	2.04	2.04	
	2.05	2.05	2.05	2.05	2.05	
	2.06	2.06	2.06	2.06	2.06	
	2.07	2.07	2.07	2.07	2.07	
	2.08	2.08	2.08	2.08	2.08	
	2.09	2.09	2.09	2.09	2.09	
Section 3	3.00	3.00	3.00	3.00	3.00	
	3.01	3.01	3.01	3.01	3.01	
	3.02	3.02	3.02	3.02	3.02	
	3.03	3.03	3.03	3.03	3.03	
	3.04	3.04	3.04	3.04	3.04	
	3.05	3.05	3.05	3.05	3.05	
	3.06	3.06	3.06	3.06	3.06	
	3.07	3.07	3.07	3.07	3.07	
	3.08	3.08	3.08	3.08	3.08	
	3.09	3.09	3.09	3.09	3.09	
Section 4	4.00	4.00	4.00	4.00	4.00	
	4.01	4.01	4.01	4.01	4.01	
	4.02	4.02	4.02	4.02	4.02	
	4.03	4.03	4.03	4.03	4.03	
	4.04	4.04	4.04	4.04	4.04	
	4.05	4.05	4.05	4.05	4.05	
	4.06	4.06	4.06	4.06	4.06	
	4.07	4.07	4.07	4.07	4.07	
	4.08	4.08	4.08	4.08	4.08	
	4.09	4.09	4.09	4.09	4.09	
Section 5	5.00	5.00	5.00	5.00	5.00	
	5.01	5.01	5.01	5.01	5.01	
	5.02	5.02	5.02	5.02	5.02	
	5.03	5.03	5.03	5.03	5.03	
	5.04	5.04	5.04	5.04	5.04	
	5.05	5.05	5.05	5.05	5.05	
	5.06	5.06	5.06	5.06	5.06	
	5.07	5.07	5.07	5.07	5.07	
	5.08	5.08	5.08	5.08	5.08	
	5.09	5.09	5.09	5.09	5.09	
Section 6	6.00	6.00	6.00	6.00	6.00	
	6.01	6.01	6.01	6.01	6.01	
	6.02	6.02	6.02	6.02	6.02	
	6.03	6.03	6.03	6.03	6.03	
	6.04	6.04	6.04	6.04	6.04	
	6.05	6.05	6.05	6.05	6.05	
	6.06	6.06	6.06	6.06	6.06	
	6.07	6.07	6.07	6.07	6.07	
	6.08	6.08	6.08	6.08	6.08	
	6.09	6.09	6.09	6.09	6.09	
Section 7	7.00	7.00	7.00	7.00	7.00	
	7.01	7.01	7.01	7.01	7.01	
	7.02	7.02	7.02	7.02	7.02	
	7.03	7.03	7.03	7.03	7.03	
	7.04	7.04	7.04	7.04	7.04	
	7.05	7.05	7.05	7.05	7.05	
	7.06	7.06	7.06	7.06	7.06	
	7.07	7.07	7.07	7.07	7.07	
	7.08	7.08	7.08	7.08	7.08	
	7.09	7.09	7.09	7.09	7.09	
Section 8	8.00	8.00	8.00	8.00	8.00	
	8.01	8.01	8.01	8.01	8.01	
	8.02	8.02	8.02	8.02	8.02	
	8.03	8.03	8.03	8.03	8.03	
	8.04	8.04	8.04	8.04	8.04	
	8.05	8.05	8.05	8.05	8.05	
	8.06	8.06	8.06	8.06	8.06	
	8.07	8.07	8.07	8.07	8.07	
	8.08	8.08	8.08	8.08	8.08	
	8.09	8.09	8.09	8.09	8.09	
Section 9	9.00	9.00	9.00	9.00	9.00	
	9.01	9.01	9.01	9.01	9.01	
	9.02	9.02	9.02	9.02	9.02	
	9.03	9.03	9.03	9.03	9.03	
	9.04	9.04	9.04	9.04	9.04	
	9.05	9.05	9.05	9.05	9.05	
	9.06	9.06	9.06	9.06	9.06	
	9.07	9.07	9.07	9.07	9.07	
	9.08	9.08	9.08	9.08	9.08	
	9.09	9.09	9.09	9.09	9.09	
Section 10	10.00	10.00	10.00	10.00	10.00	
	10.01	10.01	10.01	10.01	10.01	
	10.02	10.02	10.02	10.02	10.02	
	10.03	10.03	10.03	10.03	10.03	
	10.04	10.04	10.04	10.04	10.04	
	10.05	10.05	10.05	10.05	10.05	
	10.06	10.06	10.06	10.06	10.06	
	10.07	10.07	10.07	10.07	10.07	
	10.08	10.08	10.08	10.08	10.08	
	10.09	10.09	10.09	10.09	10.09	

Section 1: [Redacted]
 Section 2: [Redacted]
 Section 3: [Redacted]
 Section 4: [Redacted]
 Section 5: [Redacted]
 Section 6: [Redacted]
 Section 7: [Redacted]
 Section 8: [Redacted]
 Section 9: [Redacted]
 Section 10: [Redacted]

Deployed Computing KPI Values Set	Conventional Computing					[Tflop/s]	
	FY15	FY16	FY17	FY18	FY19	Total	
PEP v1.1d	0	10	14	28	36	88	
Baseline Forecast	0	10	13	28	36	87	
2-Site Forecast	0	13	16	28	35	92	
3-Site, Straddle w/BNL-IC	0	13	9	26	23	71	

Deployed Computing KPI Values Set	Accelerated Computing					[Tflop/s]	
	FY15	FY16	FY17	FY18	FY19	Total	
PEP v1.1d	0	39	52	106	136	333	
Baseline Forecast	0	38	52	106	136	332	
2-Site Forecast	0	49	60	105	132	346	
3-Site, Straddle w/BNL-IC	0	85	36	100	89	310	

Deployed Computing KPI Values Set	All Computing					[Tflop/s]	
	FY15	FY16	FY17	FY18	FY19	Total	Precise Sum
PEP v1.1d	0	49	66	134	172	421	421
Baseline Forecast	0	48	65	134	172	419	421
2-Site Forecast	0	62	76	133	167	438	448
3-Site, Straddle w/BNL-IC	0	98	45	126	112	381	390

Expect Total to

Delivered Computing KPI Values Set	Conventional Computing					[Tflop/s-Year]	
	FY15	FY16	FY17	FY18	FY19	Total	
PEP v1.1d	88	68	70	85	80	391	
Baseline Forecast	88	69	71	85	83	396	
2-Site Forecast	88	91	78	63	92	412	
3-Site, Straddle w/BNL-IC	88	91	73	63	73	388	

Delivered Computing KPI Values Set	Accelerated Computing					[Tflop/s-Year]	
	FY15	FY16	FY17	FY18	FY19	Total	
PEP v1.1d	92	67	95	145	290	689	
Baseline Forecast	92	68	96	148	293	697	
2-Site Forecast	92	73	102	142	302	711	
3-Site, Straddle w/BNL-IC	92	73	117	178	267	727	

Delivered Computing KPI Values Set	All Computing					[Tflop/s-Year]	
	FY15	FY16	FY17	FY18	FY19	Total	Precise Sum
PEP v1.1d	180	135	165	230	370	1080	1080
Baseline Forecast	180	137	167	233	376	1093	1099
2-Site Forecast	180	164	180	205	394	1123	1117
3-Site, Straddle w/BNL-IC	180	164	190	241	340	1115	1119

Expect Total to

PEP Table 1	FY15	FY16	FY17	FY18	FY19
Deployment: Baseline	0	49	66	134	172
Deployment: CR16-01	0	98	45	126	112
Delivery: Baseline	180	135	165	230	370
Delivery: CR16-01	180	164	190	241	340

PEP Appendix D CR16-01	FY15	FY16	FY17	FY18	FY19
Deployment: Conventional	0	13	9	26	23
Deployment: Accelerated	0	85	36	100	89
Delivery: Conventional	88	91	73	63	73
Delivery: Accelerated	92	73	117	178	267

PEP Appendix D CR16-02	FY15	FY16	FY17	FY18	FY19
Deployment: Combined	0	49	60	105	132
Delivery: Combined	92	73	102	142	302

PEP App. D CR16-01+2	FY15	FY16	FY17	FY18	FY19
Deployment: Combined	0	98	45	126	112
Delivery: Combined	180	164	190	241	340

Notes
PEP v1.1d values used by all models in FY15. Does not include Pi0 Expansion.

Notes
PEP v1.1d values used by all models in FY15.
BNL-IC counted as a deployment in FY16

Notes
PEP v1.1d values used by all models in FY15, does not include Pi0 Expansion

be low vs precise Sum: rounding down, forcing FY15 to original PEP v1.1d values



Notes
PEP v1.1d values used by all models in FY15.

Notes
PEP v1.1d values used by all models in FY15.
FY16: remove BNL-IC allocation from KPI. Project has no control over it.

Notes
PEP v1.1d values used by all models in FY15. Does not include Pi0 Expansion.

be low vs precise Sum: rounding down, forcing FY15 to original PEP, BNL-IC deploy

Presentation in "Calculation of BNL IC Allocation" document

Delivered Computing [Tflop/s-yr]	FY15	FY16	FY17	FY18	FY19	Project Total
2-Site	168.7	164.8	181.5	206.3	395.8	1117.1
3-Site FY Straddle	168.7	164.8	155.2	205.1	305.1	999.0
GAP between 2&3 Site	0.0	0.0	-26.3	-1.1	-90.7	-118.1
BNL IC Allocation	0.0	12.0	36.0	36.0	36.0	120.0
GAP adding BNL IC	0.0	12.0	9.7	34.9	-54.7	1.9
Notes	Assumes BNL IC available June 1, 2016 = 1/3 of FY16					

Rating of BNL IC Node	0.900	[Tflop/s-year] Estimate based on Pi0g experience
Allocated BNL IC Node	40	Time-averaged over a month