

CBETA beam commissioning traffic lights

May 2, 2019

#	Task	Status	Risk	Description	Date
NYSERDA Milestone 9				"Single pass beam energy scan"	June 30
1	Gun	Completed	None	Ready for 300 kV operations	Mar 15
2	Injection CryoModule			Ready for operations	Mar 15
3	Injection line magnets & diagnostics			Ready for operations	April 1
4	Main Linac Cryomodule (MLC)			Ready for operations	April 8
5	Injection line optics			Match optics with beam measurements	April 15
6	Beam into dump line	In progress	Low to moderate	6 MeV	April 22
7	Beam through MLC	Completed	None	42 MeV	April 22
8	Beam through splitter beamline S1	In progress	Low to moderate	42 MeV	April 29
9	Beam through FFA return arc	Not started	High	Milestone deliverable 9a	May 15
10	Energy scan complete	Not started	High	Milestone deliverables 9b & 9c	May 30
NYSERDA Milestone 10				"Single pass beam with energy recovery"	Oct 31
11	Beam through splitter beamline R1	Not started	High		June 7
12	Beam into dump	Not started	High	Decelerate 2nd MLC pass. Deliverable 10a.	June 21
13	Optimize energy recovery	Not started	High	Deliverables 10b & 10c	June 30

Status	Risk to milestone completion on schedule
Completed	None
In progress	Low to moderate
Not started	High

Milestone deliverables

- 9a Pass beam through MLC and around the arc once during this first phase of beam commissioning.
- 9b Test the ability of the arc magnets to pass a broad range of beam energies during this test.
- 9c Perform energy scan by adjusting the accelerating voltage of the MLC & activating the beam diagnostic systems.
- 10a Pass the beam through the MLC [twice] and decelerate it during the second time.
- 10b Measure the efficiency of the energy recovery of the accelerator at low currents.
- 10c Perform ... experiments on energy recovery variation with beam current and with other accelerator parameters.