Abstract Submitted for the APR21 Meeting of The American Physical Society

Status of DESI Target Selection¹ JEFF NEWMAN, University of Pittsburgh / PITT PACC, DESI COLLABORATION — The DESI Survey will rely on multiple strategies to select targets for observation. The DESI Bright Galaxy Sample will focus on roughly ten million objects at the lowest redshifts (z < 0.4). Roughly 8 million Luminous Red Galaxy targets will efficiently trace the large-scale structure of the Universe over the redshift range 0.4 < z < 1. The largest component of the sample will be a set of more than 15 million Emission Line Galaxy targets at 0.6 < z < 1.6. At the highest redshifts, more than 2 million quasars, along with the line-absorbing clouds of gas that are backlit by them, will be used to trace the large-scale structure of the Universe. Additionally, roughly 10 million stars within the Milky Way Galaxy will be observed to help explore its structure and assembly history. In this talk, I will describe the current status of the DESI target samples. I will incorporate the latest results from the DESI Survey Validation observations that began in December 2020, which are being used to optimize the final selection algorithms for each target class. Where possible, I will directly compare the current targeting performance to the survey cosmology science requirements and assess to what degree we will meet or exceed them.

¹U.S. Department of Energy, Office of Science, Office of High Energy Physics

Jeffrey Newman University of Pittsburgh

Date submitted: 06 Jan 2021 Electronic form version 1.4