The Herschel Space Observatory has enabled the observation of CO emission lines originating in the $J = 5$ through $J = 48$ rotational levels. Surveys of active galaxies (e.g., starbursts, Seyferts, ULIRGs) detect emission from levels as high as $J = 30$, but the precise excitation mechanisms responsible for producing the observed CO SLEDs (Spectral Line Energy Distribution) remain ambiguous. To better constrain the possible excitation mechanisms in extragalactic sources, we investigate the CO SLEDs arising from sources with known characteristics in the nearby Orion region. Targets include Orion-KL (high-mass star forming region containing a hot core, embedded protostars, outflows, and shocks), Orion South (high-mass star forming region containing embedded protostars, outflows, and a photodissociation region), Orion $\text{H}_2$ Peak 1 (molecular shock), and the Orion Bar (a photodissociation region). Emission lines from complex sources are decomposed using velocity information from high spectral resolution observations made with Herschel-HIFI (Heterodyne Instrument for the Far-Infrared). Each source and/or component is taken as a template for a particular excitation mechanism, and then applied to interpret excitation in more distant regions within the Galaxy, as well as external galaxies.