## Greenhouse Gas Emissions (GHG) "Hotspots"



**Where do GHG emissions come from in the wine value chain?** Shown below is a proportional breakdown of GHG emissions by category in the wine value chain. Averages are calculated from 23 IWCA member wineries' baseline GHG inventory data, which have been third-party audited and adhere to ISO-14064 standards.

Fuel use for company business 6% Vineyard soil emissions (nitrogen application) 2% Electricity purchased from local utility grid 5%	Purchased grapes from external grower partners; purchased wine, bulk wine, or distillate 25%	Case goods transport (to distributors & consumers) 14%		se ca kr do bo pa tis pa	artitions, eparators, arton, nock own oxes, ads, ssue aper, slip neets, etc. %
	Wine bottles, wine bag in box, corks, capsules, screwcaps, labels, stickers, etc. 23%	Crop protection materials, fertilizers 3% Product disposal (if not recycled) 3% Employee commute 2%	Any other packaging material 2%	Purchased bottling material and wine barrel transport 2%	Business travel 2%

**SCOPE 1:** Direct emissions from activities under a company's control

**SCOPE 2:** Indirect emissions related to a company's purchase of electricity, steam, heat, or cooling

SCOPE 3: Indirect emissions derived from the company's activity: that is, any emissions not under the direct responsibility of the firm that are spread across the company's value chain

SCOPE 2: 5%

Activities representing less than 2% of total emissions have not been labeled.