TESLA OBF DBA PROJECT

Assessment 2 Operating Budget Report

Session 3 application + Assessment 1 sixteen-step review

Company: Tesla, Inc. | Segment: Auto + Services | Report year: FY2025 only

Group written report | Organizational Budget and Finance | DBA Program | AASTMT / Marywood University

SEGMENT REVENUE	BUDGETED UNITS	UNIT PRICE	OPERATING INCOME
$82.056B	1,636,129	$50,153	$8.244B
GIVEN 10-K segment	GIVEN delivered units	CALCULATED revenue / units	CALCULATED budgeted OI

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Assumptions Register

Every planning input is labelled as real-data / chosen-assumption and tied to a source or validation check.

ID	Input	Tag	Value	Used in	Source / validation
S3-G01	Auto + Services revenue	GIVEN	$82,056M	Sales / P&L	Tesla FY2025 Form 10-K segment revenue
S3-G02	Auto + Services cost	GIVEN	$68,764M	COGS / unit cost	Tesla FY2025 Form 10-K segment cost
S3-G03	Delivered vehicles	GIVEN	1,636,129	Sales budget	Tesla FY2025 production/delivery release
S3-G04	Produced vehicles	GIVEN	1,654,667	Production budget	Tesla FY2025 production/delivery release
S3-C01	Average selling price	CALCULATED	$50,153	Sales budget	$82,056M / 1,636,129 units
S3-C02	Unit cost	CALCULATED	$42,028	Unit cost / COGS	$68,764M / 1,636,129 units
S3-A01	Representative unit	ASSUMED	Vehicle-equivalent	All schedules	Keeps the report at segment level
S3-A02	Quarterly sales phasing	ASSUMED	23 / 24 / 25 / 28%	Sales budget	Quarters sum to FY2025 deliveries
S3-A03	Finished-goods policy	ASSUMED	10% buffer; Q4 tie-out	Production budget	Full-year production ties to reported production
S3-A04	Material standard	ASSUMED	1 kit per unit	Direct materials	DM cost ties to unit-cost allocation
S3-A05	RM stock policy	ASSUMED	8% of next production cycle	Direct materials	Purchases bridge
S3-A06	Labour standard	ASSUMED	50 hours per unit	Direct labour	DL cost ties to unit-cost allocation
S3-A07	Labour capacity	ASSUMED	22.0M hours / quarter	Direct labour	Capacity gap shown, not hidden
S3-A08	MOH behavior	ASSUMED	$9,160M fixed + residual variable	MOH budget	DM + DL + MOH equals unit cost
S3-A09	SG&A behavior	ASSUMED	15% variable / 85% fixed	SG&A budget	Variable SG&A follows units sold
S3-A10	Sensitivity range	GIVEN	+/-10%	Sensitivity check	From Session 3 guide

SCOPE FOR THE REPORT

Session 3 is applied to one segment only (Tesla Auto + Services) and one year only (FY2025). The same report also includes the Assessment 1 sixteen-step review.

GIVEN

Reported or guide-specified values.

CALCULATED

Formula results with visible inputs.

ASSUMED

Planning inputs, listed by ID.

NO PLUG

Reconciliations are formula checks, not forced balances.

Step 1 Sales Budget and Step 2 Production Budget

01 Sales | 02 Production | 03 Materials | 04 Labour | 05 MOH | 06 COGS | 07 P&L | 08 Variance

Step 1 - Sales Budget

Formula: revenue = budgeted unit sales x selling price per representative unit.

Period	Sales mix	Unit sales	Selling price	Revenue	Tag
Q1	23.0%	376,310	$50,153	$18,873M	CALCULATED
Q2	24.0%	392,671	$50,153	$19,693M	CALCULATED
Q3	25.0%	409,032	$50,153	$20,514M	CALCULATED
Q4	28.0%	458,116	$50,153	$22,976M	CALCULATED
FY2025	100.0%	1,636,129	$50,153	$82,056M	CALCULATED

Step 2 - Production Budget

Formula: units to produce = sales + desired closing FG - opening FG.

Period	Sales	Opening FG	Closing FG	Units to produce	Tag
Q1	376,310	37,631	39,267	377,946	CALCULATED
Q2	392,671	39,267	40,903	394,307	CALCULATED
Q3	409,032	40,903	45,812	413,941	CALCULATED
Q4	458,116	45,812	56,169	468,473	CALCULATED
FY2025	1,636,129	37,631	56,169	1,654,667	CALCULATED

STRATEGY NOTE

The model uses a chase-with-buffer strategy: production follows quarterly sales demand, while a 10% finished-goods buffer protects against short-term delivery variance. This strategy suits Tesla's high-throughput assembly model because production can respond to quarterly demand seasonality, especially Q4 at 28% of annual volume. Vehicle inventory holding costs are significant, so the model avoids unnecessary level production. The full-year production total of 1,654,667 units ties directly to Tesla's reported FY2025 production release, showing that the production budget reconciles to the sourced annual production total.

Step 3 Direct Materials and Step 4 Direct Labour

01 Sales | 02 Production | 03 Materials | 04 Labour | 05 MOH | 06 COGS | 07 P&L | 08 Variance

Step 3 - Direct Materials Budget

Formula: kits to buy = kits used + closing RM - opening RM.

Period	Kits used	Opening RM	Closing RM	Kits bought	Purchase cost	Tag
Q1	377,946	30,236	31,545	379,255	$9,564M	CALCULATED
Q2	394,307	31,545	33,115	395,877	$9,983M	CALCULATED
Q3	413,941	33,115	37,478	418,304	$10,548M	CALCULATED
Q4	468,473	37,478	37,600	468,595	$11,817M	CALCULATED
FY2025	1,654,667	30,236	37,600	1,662,031	$41,912M	CALCULATED

Standard	Value	Tag	Validation
Material per unit	1.0 kit	ASSUMED	Representative unit simplification
DM cost per kit	$25,217	CALCULATED	Unit cost x 60%

Step 4 - Direct Labour Budget

Formula: labour hours = units to produce x hours per unit; cost = hours x wage rate.

Period	Units	Hours	Wage rate	Labour cost	Capacity	Tag
Q1	377,946	18.897M	$84	$1,588M	3.103M spare	CALCULATED
Q2	394,307	19.715M	$84	$1,657M	2.285M spare	CALCULATED
Q3	413,941	20.697M	$84	$1,740M	1.303M spare	CALCULATED
Q4	468,473	23.424M	$84	$1,969M	1.424M gap	CALCULATED
FY2025	1,654,667	82.733M	$84	$6,954M	5.267M spare	CALCULATED

CAPACITY GAP ASSUMPTION S3-A07-EXT

Q4 requires 23.424M labour hours against assumed capacity of 22.0M hours per quarter, leaving a 1.424M hour gap, or 6.5% of quarterly capacity. The planning assumption is that the shortfall is covered through authorised overtime, costed at the standard all-in labour rate of approximately $84/hour. No additional hiring is assumed. The overtime treatment is a managerial planning assumption used to keep the labour budget tied to the existing direct-labour standard.

Step 5 MOH and Step 6 Unit Cost / COGS

01 Sales | 02 Production | 03 Materials | 04 Labour | 05 MOH | 06 COGS | 07 P&L | 08 Variance

Step 5 - Manufacturing Overhead Budget

Formula: total MOH = fixed MOH + variable MOH rate x labour hours.

Period	Labour hours	Variable OH rate	Variable MOH	Fixed MOH	Total MOH	Tag
Q1	18.897M	$141	$2,673M	$2,290M	$4,963M	CALCULATED
Q2	19.715M	$141	$2,789M	$2,290M	$5,079M	CALCULATED
Q3	20.697M	$141	$2,928M	$2,290M	$5,218M	CALCULATED
Q4	23.424M	$141	$3,313M	$2,290M	$5,603M	CALCULATED
FY2025	82.733M	$141	$11,703M	$9,160M	$20,863M	CALCULATED

Step 6 - Unit Cost, Budgeted COGS, and Closing-Stock Value

Component	Per unit	Tag	Formula / source
Direct material	$25,217	CALCULATED	Budgeted unit cost x 60%
Direct labour	$4,203	CALCULATED	Budgeted unit cost x 10%
MOH	$12,609	CALCULATED	Budgeted unit cost x 30%
Budgeted unit cost	$42,028	CALCULATED	DM + DL + MOH

COGS verification	Value	Tag	Formula
Opening FG value	$1,582M	CALCULATED	Opening FG units x unit cost
COGM	$69,543M	CALCULATED	Units produced x unit cost
Closing FG value	$2,361M	CALCULATED	Closing FG units x unit cost
Calculated COGS	$68,764M	CALCULATED	Opening FG + COGM - closing FG
Budgeted COGS	$68,764M	GIVEN	Tesla Auto + Services segment cost
Variance	$0M	CALCULATED	Rounding only; schedule ties out

Step 7 SG&A Budget and Budgeted Income Statement

01 Sales | 02 Production | 03 Materials | 04 Labour | 05 MOH | 06 COGS | 07 P&L | 08 Variance

SG&A Budget

Formula: budgeted SG&A = fixed SG&A + variable SG&A per unit x units sold.

Period	Units sold	Variable SG&A / unit	Total SG&A	Tag
Q1	376,310	$463	$1,247M	CALCULATED
Q2	392,671	$463	$1,254M	CALCULATED
Q3	409,032	$463	$1,262M	CALCULATED
Q4	458,116	$463	$1,285M	CALCULATED
FY2025	1,636,129	$463	$5,048M	CALCULATED

Budgeted Income Statement

Period	Revenue	COGS	Gross profit	SG&A	Operating income	OI % revenue	Tag
Q1	$18,873M	$15,816M	$3,057M	$1,247M	$1,810M	9.6%	CALCULATED
Q2	$19,693M	$16,503M	$3,190M	$1,254M	$1,936M	9.8%	CALCULATED
Q3	$20,514M	$17,191M	$3,323M	$1,262M	$2,061M	10.0%	CALCULATED
Q4	$22,976M	$19,254M	$3,722M	$1,285M	$2,437M	10.6%	CALCULATED
FY2025	$82,056M	$68,764M	$13,292M	$5,048M	$8,244M	10.0%	CALCULATED

CLASSIFICATION RULE

The budgeted income statement is a financial-budget output, not an operating-budget component. The operating budget, Steps 1-7, supplies revenue, COGS, and SG&A as inputs. The income statement itself belongs in the financial budget package alongside the cash budget and pro forma balance sheet built in Session 4. This distinction matters for assessment: operating budget means the cost-build schedules; financial budget means the resulting P&L, cash plan, and balance sheet.

Step 8 Variance Plan and Two-Driver Sensitivity Check

01 Sales | 02 Production | 03 Materials | 04 Labour | 05 MOH | 06 COGS | 07 P&L | 08 Variance

Control item	Value	Tag	Formula / meaning
Static budget	1,636,129 units	GIVEN	Original FY2025 activity level
Variable cost per unit	$36,955	CALCULATED	DM + DL + variable MOH + variable SG&A
Fixed cost base	$13,451M	CALCULATED	Fixed MOH + fixed SG&A
Flexible-budget formula	Fixed cost + variable rate x actual units	GIVEN	Fair benchmark for actual volume
F / U rule	F = higher profit; U = lower profit	GIVEN	Variance interpretation

Variance	Question answered	Owner
Sales price / volume	Sold more/fewer units, or at a different price?	Sales / commercial
Direct material price / usage	Paid a different material price or used more/less per unit?	Purchasing / production
Direct labour rate / efficiency	Paid a different wage or took more/fewer hours per unit?	Production
MOH spending / volume	Was factory overhead above or below budget?	Factory management
SG&A spending	Was selling/admin cost controlled for units sold?	Department managers
COGS variance	Overall, did sold cost differ from budget?	Production / management

Rank	Driver	Change	Downside OI	Upside OI	OI impact	Tag
1	Selling price per unit	+/-10%	$38M	$16,450M	$8,206M	CALCULATED
2	Direct material kit price	+/-10%	$4,118M	$12,370M	$4,126M	CALCULATED

RANKING BASIS

Sensitivity rank measures operating-income impact, not probability. Selling price ranks first because a 10% price movement changes operating income by the full revenue movement when other inputs are held fixed.

Session 1 - Nine Cost-Model Steps

Assessment 1 details are included for review: Session 1 steps 1-9.

Step	Name	Method	Output	Validation
S1-01	Reconstruct income statement	FY2022-FY2025 reported lines	FY2025 revenue $94.827B; OI $4.355B	Reported OI tie-out
S1-02	Vertical analysis	Each line divided by revenue	FY2025 gross margin 18.0%; OI margin 4.6%	Common-size check
S1-03	Cost classification	Nature, behavior, function	DM/DL/MOH; variable/fixed; product/period	A01-A06 assumptions
S1-04	High-low and cost equations	Classical high-low + segment pools	$66.848B variable; $10.885B fixed manufacturing	COGS pool tie-out
S1-05	Unit product cost	DM + DL + MOH per unit	$41,558 per vehicle-equivalent unit	Component sum-back
S1-06	COGM schedule	Manufacturing cost + WIP movement	COGM reconstructed	Feeds Step 7
S1-07	COGS verification	Beginning FG + COGM - ending FG	$0 variance to reported COGS	No plug number
S1-08	Absorption vs variable costing	Inventory build x fixed MOH/unit	$102.6M absorption-variable gap	Fixed-MOH deferral
S1-09	Contribution format	Revenue - variable costs	$27.979B CM; 29.5% WACM	Feeds CVP

SESSION 1 HANDOFF

The contribution-format output becomes the starting point for Session 2: break-even revenue, margin of safety, degree of operating leverage, and budget architecture.

Session 2 - Seven CVP and Planning Steps

Assessment 1 details are included for review: Session 2 steps 1-7.

Step	Name	Method	Output	Validation
S2-01	Break-even point	Fixed costs / WACM	$80.081B BEP	BEP identity
S2-02	Margin of safety	Revenue - BEP	$14.746B; 15.6%	Safety cushion
S2-03	Degree of operating leverage	CM / OI	6.42x	Revenue miss check
S2-04	Weighted CM and mix effect	Segment weights x CM rates	Energy mix 13.5%; WACM 29.5%	Mix bridge
S2-05	Budget type classification	Operating vs financial; static/flexible/mixed	11 budget components classified	Budget architecture
S2-06	Budget sequence	Sales -> production -> cost budgets -> IS/cash/BS	Dependency order established	Session 3 handoff
S2-07	Assumptions and sensitivity	A14-A20 and downside/upside cases	Gross margin and revenue are top drivers	Impact ranking

Session 2 output	How it is used by Session 3
Budget sequence	Sets the order: sales, production, materials, labour, overhead, COGS, SG&A/P&L, variance plan.
Assumption register	Separates source data, formulas, and chosen managerial assumptions.
Sensitivity method	Defines the top-driver impact ranking used in the two-driver check.

Model Integrity and Sources

The required schedules tie together with no plug numbers and all major sources are identified.

Check	Rule	Calculation	Status
Sales budget	Quarterly sales sum to full-year delivered units	1,636,129 = 1,636,129	PASS
Production bridge	Production - sales = change in FG	18,538 = 18,538	PASS
Materials bridge	Kits bought = used + closing RM - opening RM	1,662,031 = 1,662,031	PASS
COGS verification	Opening FG + COGM - closing FG = COGS	$68,764M vs $68,764M	PASS
P&L tie-out	Revenue - COGS - SG&A = OI	$82,056M - $68,764M - $5,048M = $8,244M	PASS
Sensitivity rank	Rank by absolute OI impact	$8,206M > $4,126M	PASS

References

Reference	Used for
Tesla FY2025 Form 10-K	FY2025 revenue, cost of revenues, segment revenue/cost, inventory references, operating expenses.
Tesla FY2025 production and delivery release	Produced and delivered vehicle counts used for unit denominator and production-budget check.
Session 1 Case Guide	Nine-step cost-model structure and Assessment 1 Session 1 step map.
Session 2 Case Guide	CVP, margin of safety, DOL, budget classification, sequence, and assumption register.
Session 3 Student Guide	Operating-budget eight-step structure, flexible budget, variance plan, sensitivity check, and submission checklist.
Project workbook / website	Formula-linked calculations, source register, and public validation trail.

Assumptions Indexer

Index of every Session 3 assumption or source-data item used in the report.

ID	Tag	Used in	Value / input	Validation check
S3-G01	GIVEN	Sales / P&L	Auto + Services revenue $82,056M	Ties to segment revenue
S3-G02	GIVEN	COGS / unit cost	Auto + Services cost $68,764M	COGS verification
S3-G03	GIVEN	Sales budget	1,636,129 delivered units	Quarter units sum to full year
S3-G04	GIVEN	Production budget	1,654,667 produced units	Production bridge
S3-A01	ASSUMED	All schedules	Representative vehicle-equivalent unit	Segment-level planning device
S3-A02	ASSUMED	Sales budget	Quarter mix 23 / 24 / 25 / 28%	Annual sales tie-out
S3-A03	ASSUMED	Production budget	10% FG buffer; Q4 annual tie-out	Reported production tie-out
S3-A04	ASSUMED	Direct materials	1.0 kit per unit	DM cost equals 60% of unit cost
S3-A05	ASSUMED	Direct materials	8% RM stock policy	Purchases bridge
S3-A06	ASSUMED	Direct labour	50.0 hours per unit	DL cost equals 10% of unit cost
S3-A07	ASSUMED	Direct labour	22.0M hours capacity per quarter	Capacity spare/gap shown
S3-A08	ASSUMED	MOH budget	$9,160M fixed; residual variable	MOH equals 30% of unit cost
S3-A09	ASSUMED	SG&A budget	15% variable / 85% fixed	Variable SG&A follows units sold
S3-A10	GIVEN	Sensitivity	+/-10% change per driver	Ranked by OI impact
S3-C01	CALCULATED	Sales budget	Average price $50,153	Revenue / delivered units
S3-C02	CALCULATED	Unit cost	Budgeted unit cost $42,028	COGS / delivered units
S3-A07-EXT	ASSUMED	Direct labour / capacity	Q4 gap 1.424M hours; overtime at approx. $84/hour; no hiring	Capacity gap shown separately from base labour standard

INDEXER USE

The indexer is for defence during Q&A: each input has an ID, a tag, a schedule location, and a validation check. If a number is questioned, the ID points back to the relevant budget schedule.