Certain statements in this presentation, including, but not limited to, statements relating to the future development, ramp, production capacity and output rates, supply chain, demand and market growth, cost, pricing and profitability, deliveries, deployment, availability and other features and improvements and timing of existing and future Tesla products and technologies such as Model S, Model Y, Model X, Model S, Cybertruck, Tesla Semi, Robotaxi, our next generation vehicle platform, our Autopilot, Full Self-Driving and other vehicle software and our energy storage and solar products; statements regarding operating margin, operating profits, spending and liquidity; and statements regarding expansion, improvements and/or ramp and related timing at existing or new factories are “forward-looking statements” that are subject to risks and uncertainties. These forward-looking statements are based on management’s current expectations, and as a result of certain risks and uncertainties, actual results may differ materially from those projected. The following important factors, without limitation, could cause actual results to differ materially from those in the forward-looking statements: uncertainties in future macroeconomic and regulatory conditions arising from the current global pandemic; the risk of delays in launching and manufacturing our products and features cost-effectively; our ability to grow our sales, delivery, installation, servicing and charging capabilities and effectively manage this growth; consumers’ demand for electric vehicles generally and our vehicles specifically; the ability of suppliers to deliver components according to schedules, prices, quality and volumes acceptable to us, and our ability to manage such components effectively; any issues with lithium-ion cells or other components manufactured at Gigafactory Nevada and Gigafactory Shanghai; our ability to ramp Gigafactory Shanghai, Gigafactory Berlin-Brandenburg, Gigafactory Texas and new factories in accordance with our plans; our ability to procure supply of battery cells, including through our own manufacturing; risks relating to international expansion; any failures by Tesla products to perform as expected or if product recalls occur; the risk of product liability claims; competition in the automotive and energy product markets; our ability to maintain public credibility and confidence in our long-term business prospects; our ability to manage risks relating to our various product financing programs; the status of government and economic incentives for electric vehicles and energy products; our ability to attract, hire and retain key employees and qualified personnel and ramp our installation teams; our ability to maintain the security of our information and production and product systems; our compliance with various regulations and laws applicable to our operations and products, which may evolve from time to time; risks relating to our indebtedness and financing strategies; and adverse foreign exchange movements. More information on potential factors that could affect our financial results is included from time to time in our Securities and Exchange Commission filings and reports, including the risks identified under the section captioned “Risk Factors” in our annual report on Form 10-K filed with the SEC on January 31, 2023. Tesla disclaims any obligation to update information contained in these forward-looking statements whether as a result of new information, future events or otherwise.
Master Plan 3
Master Plan 3

Sustainable Energy For All of Earth
Our Energy Economy Is Dirty & Wasteful

Over 80% of Global Energy Comes From Fossil Fuels

Only 1/3 of Global Energy Delivers Useful Work or Heat
But there’s a better way
A Sustainable Energy Economy Is Within Reach & We Should Accelerate It

Current State
- Fossil Fuels: 82 PWh/yr
- Sustainable: 165 PWh/yr

End Use Efficiency
- Sustainable: 82 PWh/yr
- Fossil Fuels: 165 PWh/yr

Sustainable Energy Economy
A Sustainable Energy Economy Is Within Reach & We Should Accelerate It

**HOW THE MASTER PLAN WORKS**

- **240TWh** Storage
- **30TW** Renewable Power
- **$10T** Manufacturing Investment
- **1/2** The Energy Required
- **<0.2%** Land Area Required
- **10%** 2022 World GDP
- **ZERO** Insurmountable Resource Challenges
The Plan To Eliminate Fossil Fuels

- **Renewably Power The Existing Grid**
  - Displaced Fossil Fuels: 46 PWh/yr

- **Switch to Electric Vehicles**
  - Displaced Fossil Fuels: 28 PWh/yr

- **Switch to Heat Pumps**
  - Displaced Fossil Fuels: 29 PWh/yr

- **High Temp Heat Delivery & Hydrogen**
  - Displaced Fossil Fuels: 22 PWh/yr

- **Sustainably Fuel Planes & Boats**
  - Displaced Fossil Fuels: 7 PWh/yr

Reduction In Fossil Fuel Use:
- 35%
- 21%
- 22%
- 17%
- 5%
1. Repower the Existing Grid With Renewables

35% Reduction In Fossil Fuel Use

24 TWh Stationary Storage
10 TW Solar + Wind
$0.8T Manufacturing Investment
2. Switch to Electric Vehicles

21% Reduction in Fossil Fuel Use

115 TWh Vehicle Batteries & Stationary Storage

4 TW Solar + Wind

$7.0T Manufacturing Investment Needs
2. Switch to Electric Vehicles

21% Reduction in Fossil Fuel Use

Global Electric Fleet

- 40M
- 380M
- 20M
- 300M
- 700M

115 TWh
Vehicle Batteries & Stationary Storage

4 TW
Solar + Wind

$7.0T
Manufacturing Investment

Full Sustainability
EVs Use Energy Far More Efficiently

21% Reduction in Fossil Fuel Use

Tesla Model 3

Full Sustainability

4x More Efficient Oil Well to Wheel

Toyota Corolla
3. Switch To Heat Pumps in Homes, Businesses & Industry

22% Reduction in Fossil Fuel Use

6 TWh Stationary Storage

5 TW Solar + Wind

$0.3T Manufacturing Investment
Heat Pumps Move Heat, They Don’t Create It

22% Reduction in Fossil Fuel Use

Full Sustainability

Primary Energy / Heat Delivered

Gas Furnace

Heat Pump

3x Reduction
4. Electrify High Temp Heat Delivery & Hydrogen

17% Reduction in Fossil Fuel Use

- **48 TWh**: Stationary Storage
- **6 TW**: Solar + Wind
- **$0.8T**: Manufacturing Investment
4. Electrify High Temp Heat Delivery & Hydrogen

17% Reduction In Fossil Fuel Use

- 48 TWh Stationary Storage
- 6 TW Solar + Wind
- $1.0T Manufacturing Investment

Full Sustainability
5. Sustainably Fuel Planes & Boats

5% Reduction in Fossil Fuel Use

- 44 TWh Vehicle Batteries & Stationary Storage
- 4 TW Solar + Wind
- $0.8T Manufacturing Investment
Stacking Up the Investments in Our Sustainable Future

Solar & Wind Farms

- 30 TW
- Renewable Energy Grid: 10
- Heat Pumps: 4
- High Temp Thermal: 5
- Switch to EVs: 6

Vehicle & Stationary Batteries

- 240 TWh
- Renewable Energy Grid: 1
- Heat Pumps: 6
- High Temp Thermal: 48
- Switch to EVs: 24

Manufacturing Capex

- $10 T
- Renewable Energy Grid: 1.0
- Heat Pumps: 0.8
- High Temp Thermal: 0.3
- Planes and Ships: 7.0

Today: 2
1
1
2
240 TWh
$10 T
1.0
0.3
0.8
7.0
10
4
5
6
4
44
4
48
115
6
4
6
2
4
5
6
4
It’s Entirely Feasible
If We Grow our Production Capacity as Shown by 2030
We Can Be 100% Sustainable by 2050

Solar & Wind Deployment (TW/Yr)
- 2022 Deployment: 0.36
- Required Deployment Per Year: 1.0
- Increase: 3x

Vehicle, Stationary, & Thermal Battery Production TWh/Yr
- 2022 Deployment: 0.54
- Required Deployment Per Year: 16
- Increase: 29x

Electric Vehicle Production Millions/Yr
- 2022 Deployment: 8
- Required Deployment Per Year: 85
- Increase: 11x
A Sustainable Energy Economy Is 60% The Cost of Continuing Fossil Fuel Investments

20 Years of Investment In Fossil Fuels at 2022 Rate

- Coal: $1T
- Natural Gas: $7T
- Oil: $6T

$14T

20 Years Investment in Sustainable Energy Economy

- Coal: $10T

$10T
More Than Enough Renewable Resources Available

- Solar Direct Land Area: 0.14% of Land
- Wind Direct Land Area: 0.03% of Land
More Than Enough Renewable Resources Available

- Solar Direct Land Area: 0.14% of Land
- Wind Direct Land Area: 0.03% of Land

Total Earth Land Area = 32,111,167,147 Acres
12.5% of Land Use for Agriculture = 4B Acres
= 2x Contiguous US
A Sustainable Energy Economy Involves Less Mineral Extraction

EACH TRUCK IS 1 GIGATON
A Sustainable Energy Economy Involves Less Mineral Extraction

EACH TRUCK IS 1 GIGATON
The Resources Are There To Support the Transition

Cumulative Demand Until 2050, Relative to 2023 USGS Estimated Resources

- Nickel
- Lithium
- Zinc
- Copper
- Cobalt
- Iron
- Manganese
- Aluminum
- Graphite
And History Teaches: The More We Look, The More We Find

What People Think Happens vs. What Actually Happens

Co, Ni, Li, Cu

Reserves, Normalized To 2000 Reserves

'02 '06 '10 '14 '18 '22

Reserves

0 1 2 3 4 5 6 7 8 9
Recycling Will Further Reduce Mineral Demand
A Sustainable Energy Economy Is Within Reach & We Should Accelerate It

HOW THE MASTER PLAN WORKS

- **240 TWh**: Storage
- **30 TW**: Renewable Power
- **$10 T**: Manufacturing Investment
- **1/2**: The Energy Required
- **<0.2%**: Land Area Required
- **10%**: 2022 World GDP
- **ZERO**: Insurmountable Resource Challenges
01 Vehicle Design
Franz von Holzhausen, Lars Moravy
The Early Days

MODEL S
Model 3 Production Hell
Cybertruck
STEEL EXOSKELETON
Combining the Processes for the Future

1

DESIGN

ENGINEERING

MANUFACTURING

AUTOMATION
Current Way of Assembling a Vehicle

- Stamp
- Body
- Paint
- Final Assembly
Current Way of Assembling a Vehicle
Current Way of Assembling a Vehicle
More People Can Work Simultaneously on Next Generation Vehicle

Model 3

Next Gen Vehicle

44% Operator Density Improvement

30% Space Time Efficiency Improvement
Unboxed Process
Next Generation Vehicle Manufacturing Efficiencies

>40% Reduction in Manufacturing Footprint

LEGACY FOOTPRINT

NEW FOOTPRINT

Cost of Goods Sold / Car

Model 3/Y

Next Gen

50% Reduction in Cost

Innovation & Size
02 Powertrain

Colin Campbell
Faster Than a Porsche, More Efficient Than a Prius
Relentless Focus on Efficiency

Small SUVs (AWD)
EPA Range in Miles/kWh

Model Y
VW 1D.4
Ford Mach-E
Jaguar iPace
Audi e-tron

Source: OEM Websites & Other Publicly Available Sources
Efficiency Helps Us Scale

MODEL 3 POWERTRAIN FROM 2017-2022

- 20% Lighter Drive Unit
- 25% Less Rare Earth Materials
- 75% Smaller Powertrain Factory
- 65% Cheaper Powertrain Factory
The Key: Holistic Thinking
Custom Designed Packages & Microprocessors for Power Electronics
Powerful In-House Software

KEY SIMULATION TOOLS DEVELOPED BY TESLA
Powerful In-House Software

KEY SIMULATION TOOLS DEVELOPED BY TESLA
Powerful In-House Software

KEY SIMULATION TOOLS DEVELOPED BY TESLA
In-House Manufacturing Line & Automation Design
Our Next Drive Unit Will Be Even More Scalable

75% Reduction In Silicon Carbide

ANY Battery Chemistry Accepted

50% Reduction In Factory Footprint

~$1,000 All-In Cost
Rare Earths Required

~500g
Rare Earth 1

~10g
Rare Earth 2

~10g
Rare Earth 3

MODEL Y
Rare Earths Required

NEXT GENERATION PERMANENT MAGNET MOTOR

0g
Rare Earth 1

0g
Rare Earth 2

0g
Rare Earth 3

Lower Cost & Higher Efficiency Drive Units Using Zero Rare Earths
Electronic Architecture

Pete Bannon
Model S 2012

COMPLEX LOW VOLTAGE ARCHITECTURE
It’s Been Messy
Progress So Far
From Model S to Model 3
IMPROVED LOW VOLTAGE ARCHITECTURE

MODEL S

MODEL 3
Designed Our Own Controllers, With More To Come
Switched From Fuse & Relay to Electronic Fuses

<table>
<thead>
<tr>
<th>Metric</th>
<th>Fuse + Relay</th>
<th>E-Fuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fault Reaction Time</td>
<td><strong>Seconds</strong></td>
<td>&lt; 1 Millisecond</td>
</tr>
<tr>
<td>Moving Parts</td>
<td>Yes (Relays)</td>
<td>No (Solid State FETs)</td>
</tr>
<tr>
<td>Control &amp; Diagnostics</td>
<td>Coarse</td>
<td>Granular</td>
</tr>
<tr>
<td>Firmware Resettable</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Replaced Lead Acid With Lithium Ion Batteries

LEAD-ACID BATTERY

LITHIUM ION BATTERY

87% Mass Reduction

4-YEAR REPLACEMENT

LIFETIME
Reduced Costs of Model 3/Y Center Display

COST DOWN %

WEIGHT kg

POWER W

2017 2019 2021 2023

11% 24%

1.70kg 1.68kg 1.50kg

12%

30 20 10

27W 24W 18W

33%
What’s Next
The Future of Low Voltage Architecture

CYBERTRUCK, OPTIMUS, & FUTURE VEHICLES ALL 48V

CURRENT AMPS

0  50  100  150  200  250


Last Transition From 6V to 12V

48V
Cybertruck

FURTHER IMPROVING LOW VOLTAGE ARCHITECTURE
Future of Tesla Low Voltage

2012 MODEL S  CYBERTRUCK  NEXT GENERATION VEHICLE

Simpler & Cheaper Electronic Architecture, With 100% of Controllers Designed In-House
04 Software
David Lau
Relentless Improvement Via Updates & Data Insights
Real World Crash Tests: Fewer Dummies, More Smarts
Enabling Plaid-Speed Product Development

123M MILES DRIVEN PER DAY | 1.9M CHARGE SESSIONS EVERY DAY

Total Vehicle Miles, All Platforms
Software That Spans the Entire System
Leveraging Vertical Integration

PREDICTIVE AIR SUSPENSION
Vehicle Software as an Integral Part of the Assembly Line
Building the Foundations of Autonomous Fleet Management

TESLA PROFILES | SHARED PHONE KEY | LOGISTICS APP
Software Enables Efficiency, Cost Reduction & Speed

Enabling Robotaxi Fleet
Reducing Service at Mass Scale
Empowering Manufacturing
05 Full Self-Driving
Ashok Elluswamy
Architecture for a Generalized Vision System
Using State-of-the-Art AI for Modeling

VISION COMPONENT

Main Camera
- RegNet
- FPN
- Transformer
- Video Module

Left Pillar Camera
- RegNet
- FPN

Backup Camera
- RegNet
- FPN

MAP COMPONENT

Navigation Map
- Lane Guidance Module
  - (Dense World Tensor)

LANGUAGE COMPONENT

Autoregressive Decoder
- (Sparse Lane Outputs)

Lanes
- Instances
- Adjacency Matrix
Also Solve Complex Planning Problems Using AI

10ms
Joint Planning for Each Configuration

50ms
Desired Planner Execution Time
Automated Labeling by Multi-Trip Reconstruction
Automatically Produce Challenging Simulations
Data Alone Can Improve Corner Cases

Vehicle Movement Accuracy Evaluation Set

Training set

Evaluation Set

+14K VIDEOS
Large Networks Need Large Clusters

14K GPUs

4K For Auto Labeling
10K for Training

30PB DISTRIBUTED VIDEO CACHE

160B Frames
500K Videos Rotating Through Cache/Day
400K Video Instantiations per Second:

OCCUPANCY NETWORK RECIPE

Pick 1.44B frames
Train for 100,000 GPU-hours at 90°C
Scalable FSD = AI + Data + Compute

Higher Utilization

Higher Safety

Miles Driven Per 1 Collision

Tesla Vehicles Using FSD Beta: 3.2M

US Average: 0.5M
Holistic Charging Experience

9 TWh of charging provided in 2022

Roadtrips Possible: 99%
Weekly Supercharging Sessions: 1.5M
Site-Level Uptime: 99.9%
How We Got Here
Industry’s Lowest Deployment Costs

Supercharger Hardware & Installation Cost

- Australia: $20K
- California: $40K
- New York: $60K

Competitor Average

- Australia: $80K
- California: $100K
- New York: $120K

Residential AC Retail Hardware Cost

- North America: $400
- Europe: $600

Competitor Average

- North America: $1,000
- Europe: $1,200

Tesla

- North America: $800
- Europe: $600
Pre-Built Superchargers Save Weeks of Install Time & Cost
40% Improvement in Per kWh Costs

Per kWh Supercharger Cost
(Not Including Energy Costs)
Trip Planner Powers Efficient Routing

Wait Time Is Down & Site Utilization Is Up

% Of Customer Waiting

Daily kWh per post

2019 2020 2021 2022
30% Quicker Charge Times

- Transition to V3
- Efficient Routing With Trip Planner
- Supercharger Density Increasing
- Vehicle Efficiency
- Battery Pre-Heating
- Customer Education
Charging the Fully-Electrified Fleet
Ready To Serve All Vehicles
Maximize Convenient, Renewably-Powered Daytime Charging

Match Vehicle Charging With Renewable Generation

- Wind + Solar Generation
- Vehicle Charging

Hour of Day

Few Vehicles Parked During Day
Lots of Vehicles Parked During Day
What It Takes To Get There

- Scale Capacity
- Open Up to Non-Teslas
- More Renewable Charging
Can’t Forget To Do Cool S***
Tesla Supply Chain

TIER 1 PARTS

3.4K

2.1K

2.8K

TIER 2 PARTS

21K

19K

7K
The Most Powerful In-Vehicle Computer

- 7K+ Components
- 1.4ms Between Each Component Assembled Into a Car Computer
- 95% Reduction in Labor
Inbound Complexity

- 16M Pallets & Racks Received in 2022
- 1B Electronic Components Shipped Each Week
- 685 Global Service Locations
- 45 Countries
Supply Chain Hell

Shipping disruption: Why are so many queuing to get to the US?

Global shortage in computer chips 'reaches crisis point'

Car sales dampened by chip shortage, COVID measures

‘It’s Not Sustainable’: What America’s Port Crisis Looks Like Up Close

Why the Chip Shortage Is So Hard to Overcome

Supply chain chaos is already hitting global growth. And it’s about to get worse

The supply chain crisis and US ports: ‘Disruption on top of disruption’

No End In Sight For The COVID-Led Global Supply Chain Disruption

The Global Fight Over Chips Is About to Get Even Worse
Scaling Against the Odds

THOUSANDS OF VEHICLES TTM
Semiconductor Industry Can Support Our Growth

**Tesla with FSD Hardware Uses More Semiconductors Than an ICE Vehicle**

<table>
<thead>
<tr>
<th></th>
<th>2023</th>
<th>FUTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VEHICLES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.8M+</td>
<td>20M</td>
</tr>
<tr>
<td><strong>SILICON WAFERS USED 12” EQUIVALENT</strong></td>
<td>0.7M</td>
<td>8M</td>
</tr>
<tr>
<td><strong>GLOBAL WAFER CAPACITY</strong></td>
<td>-135M</td>
<td>200M</td>
</tr>
<tr>
<td><strong>TESLA SHARE</strong></td>
<td>0.5%</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

Source: ASML.com for Global Wafer Capacity
Before Heat Pump

Legacy Model S/X

Legacy Model 3
Next Generation Thermal Architecture

Numerous Manufacturing Processes:
- Forging, Stamping, Injection Molding,
- Brazing, Heat Treatment, Plastic Welding,
- Water Jetting, Machining, Ultrasonic Cleaning,
- Air Flushing, Soldering, Leak Testing, Complex Assembly
Evolution of the Heat Pump Line

WHERE WE STARTED

MANUAL
SEMIAUTOMATED

WHERE WE ARE NOW

SIMULATED
AUTOMATED
Doing More With Less

99% Reduction in labor

99.995% Of heat pumps received at Tesla are of high quality

7 sec Between each heat pump rolling off a supplier line
08 Manufacturing

Tom Zhu, Drew Baglino
We Build Ultra High Volume Factories

4 Vehicle Factories
65K Manufacturing Employees
~2M Total Annual Build Capacity
Completed Gigafactory Shanghai in 9.5 Months
Hitting New Milestones in 2023

FOR TOTAL VEHICLE PRODUCTION

First Million
12 Years

Fourth Million
7 Months

4,000,000
What It Takes To Ramp a Gigafactory

90% OVERALL EQUIPMENT EFFECTIVENESS & 45 SECOND CYCLE TIME
Strengthened Feedback Loop Between Manufacturing & Service

- Time in Service Reduction: 11% (Last 6 Months)
- Early Service Reduction: 16%
- Service Appointment Wait Time Reduction: 9%
Tesla Vehicle Footprint

& MORE TO COME ;)

Austin  Berlin  Shanghai  Fremont
Future Cell Factories, Too

THERE IS NO SPOON
Future Cell Factories, Too

There Is No Spoon
Simplicity Up, Investment Down, Scale Up

<table>
<thead>
<tr>
<th>Parts</th>
<th>Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical 2170 Cylindrical</td>
<td>17</td>
</tr>
<tr>
<td>Fremont 4680</td>
<td>16</td>
</tr>
<tr>
<td>GFTX 4680</td>
<td>15</td>
</tr>
<tr>
<td>GFNV Future 4680</td>
<td>15</td>
</tr>
</tbody>
</table>
And Upstream Materials Where Necessary

50 GWh/Year Corpus Christi Lithium Refinery

STRAWS COMMISSIONING END OF 2023
Manufacturing is the Cornerstone of a Sustainable Future

Build Production Lines Faster
Ramp Faster Through Learnings
New Waves of Production Lines Incoming
09 Energy
Drew Baglino, Mike Snyder
Building Mission-Aligned Projects Globally for 10 Years
Growth Is Accelerating

65% CAGR SINCE 2016
How Did We Get Here

MANIACAL FOCUS ON ALL ASPECTS OF DELIVERING STATIONARY STORAGE VALUE
Not Just a Big Box of Batteries
14 Years of in-House Power Electronics Expertise

1.4+ TW Deployed
Retiring Fossil Fueled Power Plants With Software
How Did We Get Here

RELENTLESS FOCUS ON SPEED OF EXECUTION
Build Megafactories Faster

FIRST MEGAFACTORY BUILT IN LESS THAN ONE YEAR
Install Projects Faster

4X INSTALLATION & COMMISSIONING SPEED SINCE 2019
Tesla Electric Unlocks the Full Value of Distributed Energy & Storage

**ENABLING OUR CUSTOMERS TO BECOME THEIR OWN UTILITY**

<table>
<thead>
<tr>
<th>Plan Description</th>
<th>Monthly Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Utility Service</td>
<td>$142/month</td>
</tr>
<tr>
<td>Add Solar and Powerwall, without Grid Interaction</td>
<td>$69/month</td>
</tr>
<tr>
<td>Tesla Electric Real-Time Dispatch of Solar and Powerwall to Benefit the Grid</td>
<td>$61/month</td>
</tr>
</tbody>
</table>

Cost of Providing Electricity to the Average Retail Customer: $130

Based on 5,000 Australia Customers in 2022
Tesla Electric Rollout Plan

Available Today

For homes with Powerwall in competitive retail electricity markets in Texas
Tesla Electric Rollout Plan

Coming in July to Texas

Unlimited overnight home charging

$30/month
This Is Just the Beginning

Cumulative Tesla Storage Deployed

We are here

Focus on Building Capacity & Ramping Fast

Tesla Is an Electricity Retailer
Impact at Tesla
Impact

Laurie Shelby, Brandon Ehrhart
Who We Are
The Team is Growing Rapidly

1/2 WORK IN MANUFACTURING

Tesla Global Employee Count

- 2010: 0
- 2011: 0
- 2012: 0
- 2013: 5,000
- 2014: 10,000
- 2015: 15,000
- 2016: 20,000
- 2017: 25,000
- 2018: 30,000
- 2019: 35,000
- 2020: 40,000
- 2021: 90,000
- 2022: 129,000

1/2 of the employees work in manufacturing.
Engineers Want to Work Here

Total Applicants

<table>
<thead>
<tr>
<th>Year</th>
<th>Applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>500,000</td>
</tr>
<tr>
<td>2020</td>
<td>1,000,000</td>
</tr>
<tr>
<td>2021</td>
<td>2,500,000</td>
</tr>
</tbody>
</table>

US Engineering Students’ Rankings

<table>
<thead>
<tr>
<th>Employer</th>
<th>2022 Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>SpaceX</td>
<td>1</td>
</tr>
<tr>
<td>Tesla</td>
<td>2</td>
</tr>
<tr>
<td>NASA</td>
<td>3</td>
</tr>
<tr>
<td>Lockheed Martin</td>
<td>4</td>
</tr>
<tr>
<td>Boeing</td>
<td>5</td>
</tr>
<tr>
<td>Apple</td>
<td>6</td>
</tr>
<tr>
<td>Google</td>
<td>7</td>
</tr>
<tr>
<td>Microsoft</td>
<td>8</td>
</tr>
<tr>
<td>Northrop Grumman</td>
<td>9</td>
</tr>
<tr>
<td>Raytheon Technologies</td>
<td>10</td>
</tr>
</tbody>
</table>
As Employee Engagement Increases, Safety Improves

Work Related Injuries Rate From GFNV

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Suggestions From GFNV</td>
<td>2,200</td>
<td>3,000</td>
<td>4,500</td>
<td>6,000</td>
</tr>
<tr>
<td>Work related injuries Rate From GFNV</td>
<td>1.9</td>
<td>2.1</td>
<td>2.3</td>
<td>2.9</td>
</tr>
</tbody>
</table>
Our Products Generate More Energy Than Our Products & Factories Consume

Tesla Cumulative Net Energy Impact: 2012-2021

Energy Produced
Tesla Solar Panels

25.39 (TWh)

Energy Consumed
Tesla Factories & Other Facilities

25.27 (TWh)

- Energy Used at Tesla Factories & Other Facilities
- Energy Used to charge all Tesla vehicles
Our Vehicles Emit Less Emissions Than Gas Vehicles

INCLUDING BOTH MANUFACTURING & USE

![Graph showing average lifecycle emissions in the U.S. comparing Model 3Y Personal Use (US Avg Grid) to Average Premium ICE. The graph includes both manufacturing and use phases.]
We Continue To Reduce Cost of Our Existing Products

Model 3 Cost Per Car - Normalized

Includes material costs, manufacturing costs, inbound and outbound logistics, warranty. Normalized for changes in market rates of lithium, nickel, steel and aluminum.
Cost Reductions Come From Everywhere

- Volume Growth
- Productivity
- Overhead Efficiency
- Product Improvements
- Engineering Changes
- Localization
- Supplier Scale
New Gen Vehicle Will Enable Step Change in Cost & Volume

Current Volume Product
Vehicle
Battery & Powertrain
Manufacturing & Other
Next Gen Vehicle

Cost

50% Target
Tight Operating Expense Control To Enable Operating Cash Flow

Operating Expenses as a % of Revenue (Non-GAAP)

- 2018: 17.7%
- 2019: 13.7%
- 2020: 10.1%
- 2021: 9.4%
- 2022: 7.5%
- Q4 2022: 6.6%

Excludes digital assets gain/loss, stock-based compensation, material one-time items.
2021 figure excludes $340M payroll tax on CEO award option exercise.
Industry Leading SG&A per Car Enabling Improved Affordability

Selling, General & Administrative Expenses per Vehicles

Traditional

Tesla

60-70%

Lower Than Traditional

Benchmark: GAAP Operating Expenses, publicly traded OEM SG&A per vehicle + dealer SG&A per vehicle
Publicly traded OEM SG&A includes average of GM, Ford, BMW, Toyota, Volkswagen, Mercedes Benz
Dealer SG&A per car includes average of Autonation, Lithia, Group 1 Automotive, Sonic Automotive, Asbury Automotive
Efficiency Improvements

FINANCE CASE STUDY

Tesla Operating System

- Factory
- Warehousing
- Service
- Customer
- Mobile App
- Finance
- Human Resources
- Recruiting
- Data Analytics
Continued Improvement in Internal Process Efficiency

** Efficiency Improvement **

- **4x** North American Sales
- **4x** Order Operations
- **5x** Financial Services
- **6x** Accounts Payable
- **7x** Document Generation

** Performance & Capabilities **

- Order Modification
- Captive Lease / Loan Servicing
- Captive Insurance
- Real Time Data Visibility
- 10Q & 10K Timeline
We Expect our Pace of Investment to Scale With Operating Cash Flow Growth

- 20M Annual Vehicle Production
- 1 TWh Annual Energy Storage Production
- Expand Cell Production, Service and Charging

~$150-175B Estimated Total Investment
~$28B Investment to Date
Funded by Operating Cash Flow
# Capital Allocation

## 1. Daily Operations
- Working Capital
- Captive Financing (Market Gaps)
- Downside Protection

## 2. Growth
- R&D
- Capital Expenditures (Growth)

## 3. Opportunistic
- Capital Expenditures (Elective)
- Captive Financing (Elective)
- Acquisitions
- Debt Reduction

## 4. Excess
- Buyback / Dividend
Achieving the Master Plan

- Innovation Driven Cost & Efficiency
- Improved Affordability
- Reinvest to Achieve Unprecedented Scale
- Accelerate the World's Transition to Sustainable Energy