Tesla Ecosystem

Tesla Company
3500 Deer Creek Road
Palo Alto, CA 94304
(650) 681-5000; www.tesla.com

Outside Relationships

Regulators

Vehicle-Related Regulation

- National Highway Traffic Safety Administration (NHTSA) and Foreign Regulators
  - Federal Motor Vehicle Safety Standards (Crash-Worthiness, Crash Avoidance, and Electric Vehicle Rules)
  - Bumper Standard
  - Corporate Average Fuel Economy Standards
  - Theft Prevention
  - Consumer Information Labeling Rules
  - Early Warning Reporting for Warranty Claims, Deaths and Injuries, Foreign Recalls,
  - Owner's Manual Requirements
  - Manufacturer's Suggested Retail Price, Optional Equipment and Pricing Disclosures
  - Guidelines on Self-Driving Vehicles
- State and Foreign Vehicle Regulators (Restrictions on Self-Driving Vehicles or Driver-Assistance Features)
- State Laws Regarding Vehicle Manufacturer and Dealer Operations (Licensing Requirements; Prohibition in Some States Against Vehicle Manufacturers to Operate as Dealers)
- Internal Revenue Service (26% Tax Credit for Qualifying Spending by Consumers on Solar Energy Systems; Expires 2023)
- Federal Energy Regulatory Commission (Participation of Energy Storage in Wholesale Energy Markets)
- State Procurement Targets (For Energy Storage)

Capital

Lenders

- Public Debt Holders
- Commercial Banks (Wells Fargo, JPMorgan Chase, Goldman Sachs, Various Chinese Banks)

Government Incentives

- California Alternative Energy and Advanced Transportation Financing Authority (Sales Tax Exclusions for In-State Electric Vehicle and Powertrain Production)
- Nevada Governor's Office of Economic Development (Tax Abatements, Tax Credits for In-State Capital Investment, and Hiring)
- Research Foundation for the Sate University of New York (Lease, Research and Development Alliance on Triex Module Technology, Hiring and Investment Targets)
- Shanghai Planning and Land Resource Administration Bureau (Land Use Rights for Gigafactory and Income Tax Reduction to 15% ; for Required Capital Investment and Tax Revenue Targets,
- Travis County, Texas (80% Property Tax Co-Payment, 10-Year Cap on Taxable Value of Property, Subject to Economic Development Targets at Gigafactory)

Suppliers

Select Suppliers

- Professional Services
  - PwC (Audit Services)
  - Wilson Sonsini (Legal Services)
- Materials Supplies
  - AGC Automotive (Windshields)
  - ABC Group (Washer Reservoir System)
  - Angell-Demmel (Metal Sill Plates)
  - Argent (Belt Buckle Pad)
  - Brembo (Brakes)
  - Fisher Dynamics (Power Seats)
  - Harada (Antenna System)
  - Inteva Products (Instrument Panel)
  - Modine Manufacturing (Battery Chiller)
  - Multimatic (Front Door Hinges)
  - Panasonic (Battery Cells)
  - PSM International (Flanges Form Nuts)
  - Sika Automotive (Acoustic Damper)
  - Stabilus (Liftgate gas spring)
  - ZF Lenksysteme (Power Steering)
  - Steel Dynamics; Thomas & Betts (Steel for Cybertruck)
  - LG Chem (Nickel-Cobalt-Aluminum Batteries)
  - UACJ (Aluminum)
  - Harmonic (Digital /Fiber Optic System for Video Streaming)
  - Hammer Fiber Optics Holdings (Dark Fiber Network Solutions)
  - Titanium Metals (Titanium Products)
  - Puradyn Filter (Oil Filtration Systems)
  - Vystar (Natural Rubber Latex)
  - New Caledonia (French Territory) (Nickel)

Customers

Bond Financing

Commercial Loans

Vehicle Safety and Related Regulation

Government Incentives

Battery Cells, Steel, Aluminum, Cobalt, Nickel, Copper, Base and Precious Metals, Plastics, Coatings, Electronics, Complex Vehicle Components and Subassemblies, and Other Supplies

Tesla Company (a Delaware Corporation)

Debt Structure

Recourse Debt ($5.66B)

- 2021 Notes @ 1.25% ($419M)
- 2022 Notes @ 2.375%($481M)
- 2024 Notes @ 2.00 % ($1.027B)
- 2025 Notes @ 5.30 ($1.785B)
- ABL Credit Agreement @ 3.30% ($1.895B)
- Solar Bonds and Other Loans @ 3.6%-5.8% ($54M)

Non-Recourse Debt ($4.56B)

- Automotive Asset-b\Backed Notes @ 0.6%-7.9% ($1.698B)
- Solar Asset-Backed Notes @ 3.0%-7.7% ($1.115B)
- China Loan Agreements @ 4% ($616M)
- Cash Equity Debt @ 5.3%-5.8% ($426M)
- Solar Loan-backed Notes @ 4.8%-7.5% ($146M)
- Warehouse Agreements @ 1.7%-1.8% ($294M)
- Solar Term Loan @ 3.7% ($0.151B)
- Automotive Lease-backed Credit Facilities @ 1.9%-5.9% (0.033B)
- Solar Revolving Credit Facility and Other Loans @ 2.7%-5.1% ($81M)
- Total Finance Leases ($1.468B)

Credit Ratings
Moody's: *B2-Corporate Family Rating; B3-Senior Unsecured Rating*
S&P: *BB*

Equity Structure

Equity

- **Share Repurchase Plan** — Authorized: None Available: N/A Expiration: N/A
- **Preferred Stock** — Authorized: 100 M Issued and Outstanding: None Record Holders: 0
- **Common Stock** — Authorized: 2000 M Issued and Outstanding: 959.85M Record Holders: 5,353

Governance

Board of Directors

- Elon Musk
- Ira Ehrenpreis (C,G)
- Antonio J. Gracias (A)
- Larry Ellison
- Hiro Mizuno (A)
- Kimbal Musk
- Robyn M. Denholm (Chair,A,DC,C,G)
- James Murdoch (A,DC,G)
- Kathleen Wilson-Thompson (DC,C,G)
- Committees: Audit (A) Disclosure Controls (DC) Compensation (C) Nominating and Governance (G)

Management Team

- Elon Musk—CEO and co-founder of Tesla Motors & Chairman of SolarCity
- Zachary J. Kirkhorn—CFO
- Vaibhav Taneja—Chief Accounting Officer
- Jerome Guillen—President, Automotive
- Andrew Baglino—SVP - Powertrain & Energy Engineering
- Robyn M. Denholm—Chairman
- Franz von Holzhausen—Chief Designer
- Robin Ren—Vice President - Asian Pacific
- Yaron Klein—Treasurer
- Martin Viecha—Senior Director - Investor Relations

Corporate Matters

Finance,

- Accounting
- Finance Operations
- Financial Planning & Analysis
- Internal Audit
- Manufacturing Accounting
- Fund & Cost Accounting
- Finance Analysis

Service & Energy Installation

Sales & Customer Support

Marketing & Communication

Human Resource

- HR Business Partners
- People Operations
- Learning, Development, and Performance
- Benefits
- New Hire Orientation

Operations & Business Support

- Energy
- Energy Operations
- Residential Energy

Construction and Facilities

Design

- Visual Design
- Video Production
- Color, Material and Finish Design
- Tesla Design
- Digital Content
- Energy Service Industrial & Process Engineering

Legal

- Immigration
- Litigation Management
- Public Policy & Business Development

Manufacturing

- Engineering
- Quality Engineering
- Packaging Engineering
- Industrial Engineering
- Automation Controls Engineering

Engineering and IT

- Materials
- Energy
- Vehicle Engineering
- IT and Software
- Vehicle Hardware

Supply Chain

- Purchasing
- Logistics
- Planning
- Industrial Engineering

Electric Vehicle Projects

- Cybertruck
- Tesla Roadster
- Tesla Semi
- Low-Cost Vehicles (with Full Self Driving and Battery Cell Technologies)
- Autonomous Tesla Ride-Hailing Network

Operations

AUTOMOTIVE SEGMENT
(2020 Revenues: $27.236 Billion)

Model S

4-Door Sedan: All-electric 4-door full-size sedan, standard dual motor all-wheel drive powertrain; includes Tesla vehicle mainstays – autopilot (Full Self Driving/FSD), large touchscreen interface, with over-the-air software updates

Image



Factory

Fremont Factory (Bay Area, California)

Model X

Mid-Size SUV: All-electric mid-size sport utility vehicle for up to 7 adults, falcon wing doors, panoramic windshield: autopilot, large touchscreen interface; optional *Performance* version for enhanced speed and styling

Image



Factory

Fremont Factory (Bay Area, California)

Model 3

Mid-Size Sedan: All-electric 4-door midsize sedan for up to 5 adults, rear-wheel drive, dual motor all-wheel drive variants, autopilot, large touchscreen interface, priced for mass-market appeal; optional *Performance* version

Image



Factory

Fremont Factory (Bay Area, California), Gigafactory Shanghai Gigafactory Texas (May 2021)

Model Y

Compact SUV: All-electric compact sport utility vehicle (built on the Model 3 platform) for up to 7 adults, dual motor all-wheel drive, heat pump, autopilot, large touchscreen interface; optional *Performance* version

Image



Factory

Fremont Factory (Bay Area, California) Gigafactory Shanghai, Gigafactory Berlin (Mid-2021)

Other Automotive-Related Products and Services

- **Battery** — Lithium-ion cells are used in Tesla's high voltage battery packs in the vehicles. Battery packs for (a) Models S and X are produced in Tesla's Bay Area facilities and (b) for Models 3 and Y at Gigafactory Nevada.
- **Retail Merchandise** — Tesla sells car vehicle accessories, such as sunshades, phone chargers, roof racks, apparel, and charging equipment.
- **Warranties** — Each new vehicle has a four-year or 50,000-mile limited warranty (which may be extended), subject to separate limited warranties for the supplemental restraint system, battery and drive unit, and body rust perforation.
- **Insurance** — Tesla offers insurance to customer, often at better rates than other alternatives by eliminating fees taken by traditional insurance carriers. It is currently available in California, with plans to expand to other U.S. States.
- **Used Vehicles** — Tesla accepts trade-ins of existing Tesla and non-Tesla vehicles in exchange for a new Tesla vehicle. Tesla subsequently remarkets trade-in vehicles (directly or through third-parties) for resale or lease.
- **Regulatory Credits** — Tesla sells regulatory credits to auto manufacturers who need them to comply with emission and other regulatory requirements. In 2020, Tesla's revenue from credits sales totaled $1.58 billion.
- **Superchargers** — Tesla sells an industrial grade, high-speed charger (made in Gigafactory New York) designed to recharge a Tesla vehicle significantly quicker.

Competitors (Premium All-Electric Sedans and SUVs)

- Porsche Taycan Turbo S
- Lucid Air
- Audi e-Tron GT
- Mercedes-Benz EQS
- Jaguar Electric XJ
- BMW 7-Series

Competitors (Small to Medium-Sized All-Electric Sedans and SUVs)

- Chevrolet Bolt
- Audi A3 Sportback e-tron
- BMW 330e iPerformance
- Ford Fusion Energi
- Jaguar I-Pace
- Lexus ES Hybrid

ENERGY GENERATION AND STORAGE SEGMENT
(2020 Revenues: $1.994 Billion)

Energy Storage Products

Powerwall

Stores energy at a home or small commercial facility; includes 13.5-kilowatt hour ("kWh") rechargeable lithium-ion battery with integrated inverter

Image



Factory

Gigafactory Nevada (Reno))

Mega/Powerpacks

When combined, Mega- and Power-packs can create microgrids that provide communities with clean, resilient, affordable power; can reach gigawatt hours ("GWh") or greater

Image



Factory

Gigafactory Nevada (Reno))

Solar Products

Panels/Roof

Converts sunlight into electric current; includes the Solar Roof

Image



Factory

Gigafactory New York (Buffalo)

Inverters

Converts the output from the panels to a current compatible with the electric grid

Image



Factory

Gigafactory New York (Buffalo)

Racks

Connects the solar energy system to the electric grid

Image

Factory

Gigafactory New York (Buffalo)

Hardware

Attaches the solar panels to the roof or ground

Image



Factory

Gigafactory New York (Buffalo)

Other Energy Storage-Related Products and Services

- **Regulatory Credits** — Tesla sells credits related to greenhouse gas, fuel economy, renewable energy and clean fuel to regulated entities who use credits to pass emission and renewable energy procurement standards.
- **Warranties** — Tesla provides 10- and 15-year "no defect" and "energy retention" warranties with every Powerwall and Powerpack or Megapack system
- **Financial Services** — Tesla offers a loan product to residential customers who bundle a Powerwall with a new solar energy system, and lease and PPA options to commercial customers who bundle a Powerpack system with a new solar energy system.

Competitors (Energy Storage Systems)

- AES Energy Storage
- Siemens
- LG Chem
- Samsung

Other Solar-Related Products and Services

- **Solar Renewable Energy Credits** — Tesla recognizes revenue from selling a Solar Renewable Energy Certificate ("SREC") when the SREC is transferred to the buyer
- **Warranties** — For its Retrofit solar energy systems, Tesla provides limited warranties for workmanship and against roof leaks. Limited warranty for the Solar Roof covers defects, weatherization
- **Purchase Alternatives** — Retrofit solar energy systems are available through sale, lease, power purchase agreement arrangements, and a subscription-based sale of solar power.
- **Incentives** — U.S. and state governments have established various incentives to accelerate adopting solar energy and reduce its cost.

Competitors (Solar Power Systems)

- Vivint Solar Inc.
- Sunrun Inc..
- Trinity Solar
- SunPower Corp.
- Pacific Gas & Electric Co.

Outside Relationships

Customers

Labor Unions (Tesla Not Currently Unionized)

- IG Metall
- United Auto Workers (UAW)

Select Suppliers

- Avid Technology (Electrified Powertrain Parts)
- Strattec Security (Smart Vehicle Locks, Keys and Access Controls)
- Handy & Harman (Precious Metals, Tubing and Engineered Materials)
- Orbital Energy Energy Infrastructure Services Platform)

Types of U.S. and Foreign Regulatory Credits

- Zero-Emission Vehicles Credits (California)
- Greenhouse Gas Emissions Credits (EPA)
- Fuel Economy Credits (NHTSA)
- Renewable Energy Credits
- Clean Fuel Credits

Suppliers

- IEH (Circuit Connectors)
- Core Molding Technologies (Sheet Molding Compounds, Fiber Glass Reinforced Plastics)
- Perma-Pipe International Holdings (Piping Systems)
- Applied Optoelectronics (Fiber Optic Networking Products)

Capital

Significant Stockholders

- Elon Musk (20.8%)
- Vanguard Group (5.74%)
- Capital Research & Management (4.88%)
- BlackRock Fund Advisors (3.51%)
- SSGA Funds Management (3.12%)
- Baillie Gifford (2.88%)
- Institutional Ownership: 45.81%

Regulators

Securities Regulators

- US Securities and Exchange Commission (SEC) (Securities Law Disclosure and Reporting Requirements; Anti-Bribery Law)
- The NASDAQ Global Select Market (Listing and Maintenance Rules)
- Public Utility Regulation (Tesla Relies on an Exclusion from Regulation As A "Regulated Public Utility")

General Regulation

- U.S. Environmental Protection Agency (EPA) (Regulates Use, Storage, and Disposal of Battery Packs, Transport of Dangerous Goods; Greenhouse Gas Emissions)
- U.S. Patent and Trademark Office, U.S. Copyright Office, and Foreign Counterparts (Intellectual Property Registration)
- U.S. Department of Labor and Foreign Counterparts (Wage and Overtime Record Keeping, Fair Hiring, Serious Injury Reporting)

Securities Regulation and Stock Exchange Listing Rules

Equity Capital

Union Organization Campaigns

Components and Materials Supplies

Regulated Utility Exclusion

General Business Regulation

Issuance of Regulatory Credits

Regulatory Credits Sales

Coordination of Financing Alternatives for Solar Systems Buyers

Sales of Solar Energy Generation Systems

Fixed Monthly Fee Leasing and Power Purchase Agreement Options (Tesla Generates Solar Energy at its Facilities and Sells Power to Customer on a Fee per Kilowatt-hour Basis)

Interconnection Agreement to Connect Customers' Solar Energy Systems to Utility Grid (Enables "Net Metering")

Customers

- Industrial Companies (e.g., Automakers General Motors and Fiat Chrysler Auto)
- Financial Institutions
- Solar Product Loan Financing Arrangements
- **Solar Energy Generation Customers**
  - Commercial Customers
  - Industrial Customers
  - Utilities
  - Residential
- Sales Channels
  - Tesla Website
  - Tesla Stores
  - Tesla Galleries
  - Channel Partners
- Regulated Electric Utility Companies

VEHICLES

Charging Stations

- Destination Charging Stations (Hospitality, Retail, and Public Destinations and Workplaces)
- Home and Multifamily Residential Charging Locations
- Tesla Supercharger Stations (Co-Located Near Tesla Solar and Energy and Storage Systems and in Dense Cities)

Arrangements for the Development of Public Charging Infrastructure

Use of Electric Charging Station (Free Under Certain Tesla Sales Programs)

Tesla Vehicle Customers

- Individual Customers
- Industrial Customers
- Utilities
- Energy Generation Customers

Sales Channels

- Tesla Website
- Tesla Stores
- Tesla Galleries (No Sales)

New Tesla Vehicle Sales (Including via Existing Vehicle Trade-ins)

Used Tesla Vehicle Sales

Auto Insurance Sales (in California Only)

Service and Repairs (via Tesla Service Locations and Tesla Mobile Service Technicians)

Tesla Vehicle Leasing and Loan Financing Arrangements

Coordination of Financing Alternatives for Vehicle Buyers

Financial Institutions

ENERGY STORAGE

Energy Storage Customers

- Residential Customers
- Commercial Customers
- Utilities (Powerwall Product)
- Industrial Customers

Sales Channels

- Tesla Website
- Tesla Stores
- Tesla Galleries
- Channel Partners

Sales of Powerwall, Powerpack, and Megapack Storage Products

Service and Repairs

Loan, Lease and Power Purchase Agreement Options (Only for Residential and Commercial Customers Who Pair Energy Storage and Solare Energy Systems)

SOLAR

Sense Technologies (Blind Spot Driver Awareness System)

Liquidmetal Technologies (Solid Metal Parts Via Injection Molding)

Zap (Lithium Battery Systems)

SeaChange International (Video Delivery Platforms)

Telkonet (Intelligent Energy Automation Platforms)

NI Industries (Metal Work Products)

CDTI Advanced Materials (Emission Reduction Systems)

Emcore (Advanced Mixed-Signal Products)

THT Heat Transfer Technology (Heat Exchangers)

KMG Chemicals (Specialty Chemicals)

Zoom Telephonics (Modems, VoIP and Bluetooth Products)

CTS (Sensors, Actuators and Electronic Components)

Jason Industries (Industrial and High-hydraulic Hoses and HVAC Belts)

Amerityre (Polyurethane Tires)

Findex .Com (Glass-Based Surface Coating)

Curaegis Technologies (Heart and Fatigue Rate Monitoring Devices)

CSW Industrials (Coatings, Sealants, Adhesives, Lubricants, Paint)

China Automotive Systems (Power Steering Systems)

UFP Technologies (Polyurethane and Polystyrene Foam Products)

Proto Labs (3D Printed, CMC-Machined Sheet Metal and Injection Molded Parts)

Haynes International (Corrosion Resistant, High Temperature Alloys)

Aaon (Heating, Ventilation and Air-conditioning Equipment)

Gorman Rupp (Pumps and Pumping Systems)

NeoPhotonics (Optoelectronic Devices for Ultrafast Telecom Networks)

ARC Group Worldwide (Metal Injection Molding Components and Parts)

Xom (Coatings, Sealants, Adhesives, Lubricants, Paint)

Universal Stainless & Alloy Products (Special Steel Long Products)

Deswell Industries (Injection-Molded Plastic Parts)

Trecora Resources (Specialty Petrochemical Products and Waxes)

Key Company Data (as of 12/31/20)

Share Data

- Stock Exchange: NASDAQ
- Ticker Symbol: TSLA
- Share Price: $597.95 (as of 03/5/2021)
- EPS (Trailing 12 Months): $0.64
- Annual Dividend: None
- Market Cap: $573.945B

Financial Highlights

Statements of Operations

- Revenues: $31.54B
- Auto: $27.24B (86.4%)
- Energy: $1.99B (6.3%)
- Services: $2.30B (7.3%)
- Cost of Goods: $24.91B
- Total SG&A: $4.64B
- Net Income: $862M

Resources/Commitments

- Employees: 70,757
- Six Manufacturing Facilities
- Supply Chain: 100,000+ parts from 1,200 Tier 1 suppliers and 10,000 indirect suppliers in over 60 countries
- Warranty Matters: In 2020, Tesla had total accrued warranty of $1,468M

Balance Sheet

- Total Assets: $52.15B
- Cash: $19.39B
- Total Liabilities: $28.42B
- Long Term Debt: $9.56B
- Equity: $22.22B

Cash Flows

- From Operations: $5.94B
- From Investing Activities: ($3.132B)
- From Financing Activities: $9.97B

Recent Developments

Digital Assets: In January 2021, Tesla updated its investment policy to permit investment of alternative reserve assets in digital assets and thereafter invested $1.5 billion in the Bitcoin cryptocurrency. Tesla also announced that it will accept Bitcoin as a form of payment for its vehicles and energy and storage products.

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www.onepagethinking.net
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