



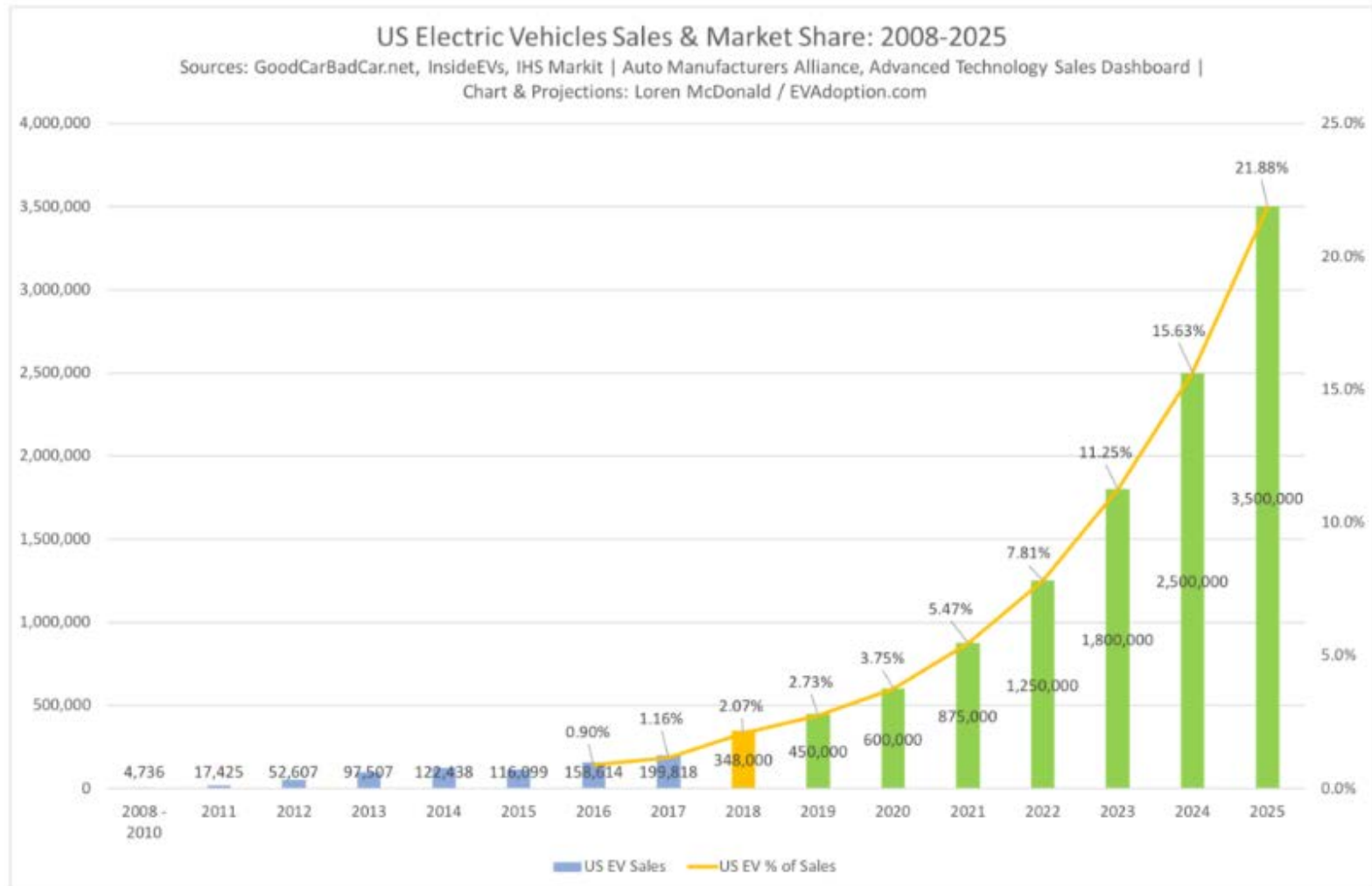
Eugene Water & Electric Board

EWEB Transportation Electrification Efforts

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EV Trends - US



EV Trends - Locally

DMV - Registered EV

Region/Year	2016	2017	End of June 2018
Oregon	13,261	16,252	17,893
Lane County	NA	NA	1,233
EWEB Territory	321	403	744

EWEB Clean Ride Rebate Participation

Year	2016	2017	2018	January 2019
Participants	6	14	77	24
				January 2018
				0



Industry Commitments to EVs

Carmaker	<i>Commitment/Proposed Investment in EVs:</i>
Daimler	\$1 billion to build battery facility
General Motors	20 all-electric models by 2023
Jaguar Land Rover	Electrify* entire line by 2020
Mercedes-Benz	Electrify* portfolio by 2022
Renault-Nissan-Mitsubishi Alliance	Deploy 12 all-electric models by 2022
The VW Group	\$84 billion in EV development
Volvo	Electrify* entire fleet by 2019

**Auto companies consider traditional hybrids as electric vehicles, so an announcement that the entire fleet will be “electrified” is not an indication of only plug-in electric vehicles.*

FORTH Mobility



Why EVs?

- **39% GHG in Oregon** – Transportation sector
- **Health Benefits** – Reduction in exhaust emissions
- **Cost Savings** – Over 75% reduced fueling costs and less maintenance
- **Flexibility of Charging (Smart Electrification)** – Availability of clean power
- **Social, environmental, and economic benefits for our entire community**



Current Efforts and Programs

Incentives, Loans and Education

- \$300 Clean Ride Rebate
- Commercial loans for charging stations
- rEV UP Eugene! Partnership
- Ride-and-Drive Events
- Oregon's Clean Fuels Program
- Partnerships

\$300 Clean Ride
Rebate



Buy fuel for a year

OR



Install a home charger



New Efforts and Programs

- Enhance Current Programs
 - Residential Level 2 Charger Loan Program
 - Rebate For Public and Workplace Charging.
- Specialized EV Rate for Fleet
- Dealership Incentive Program
- EV Car-Sharing Pilot Project

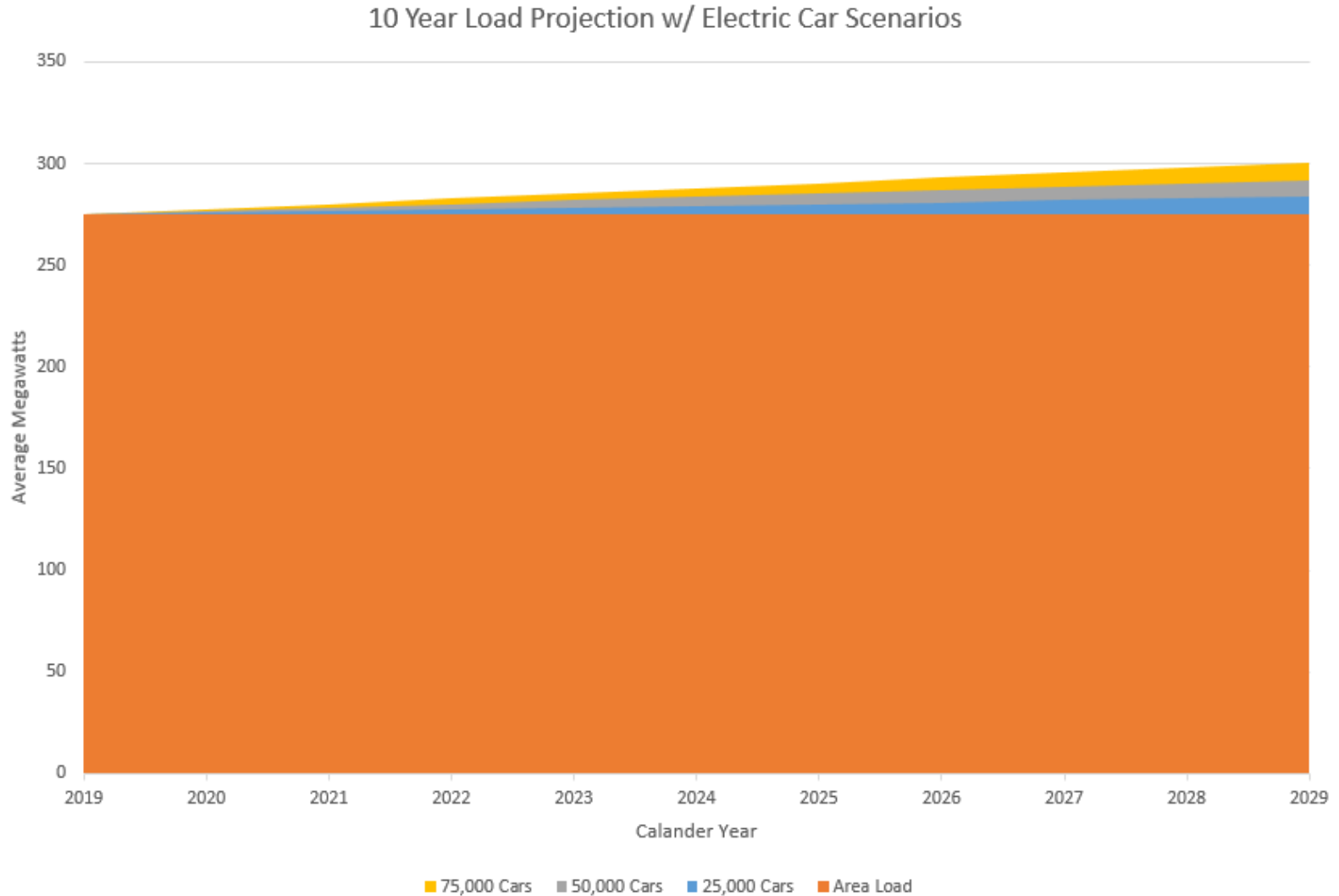


What If...

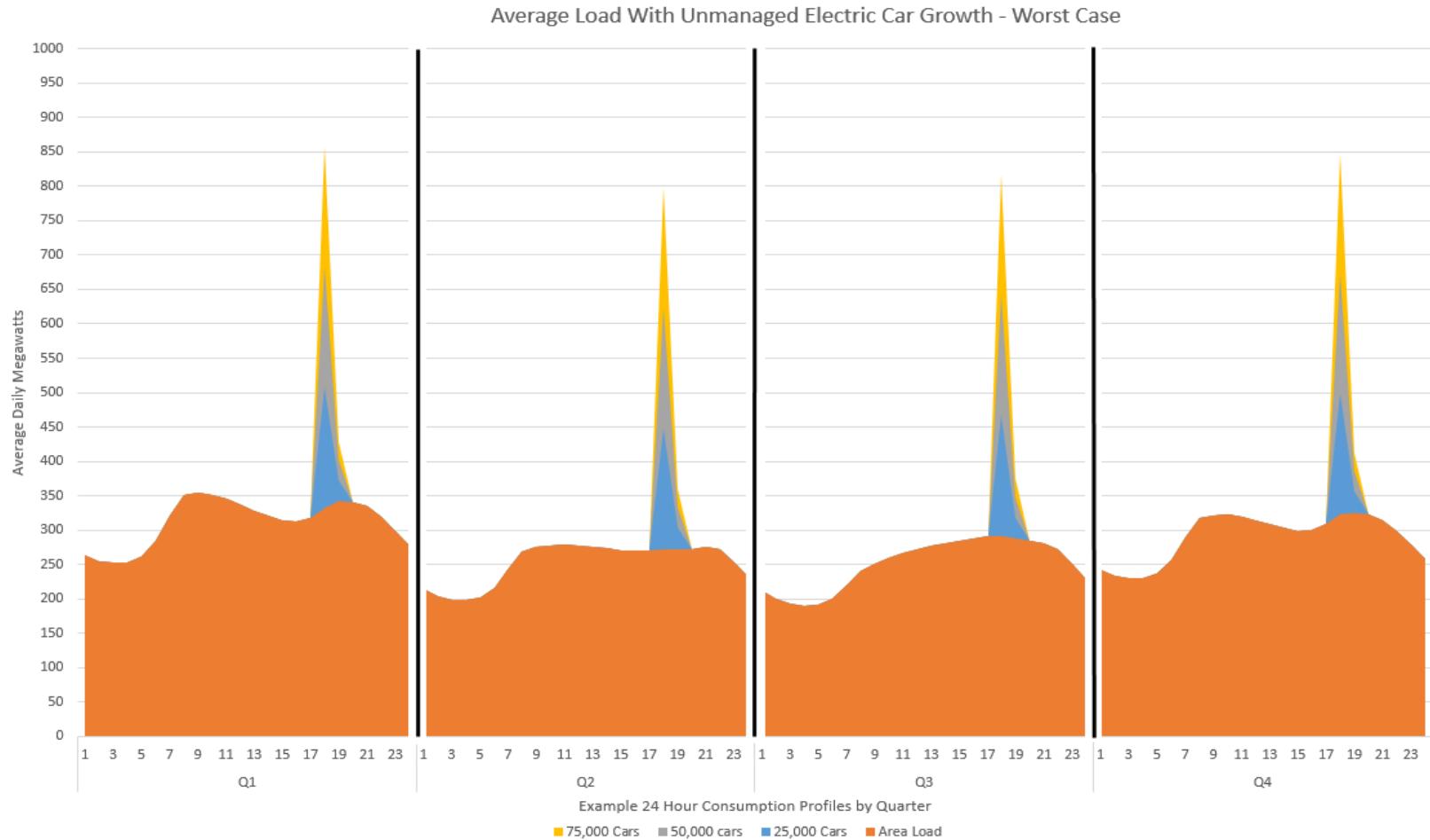
we had 25K, 50K or 75K EVs by 2030?



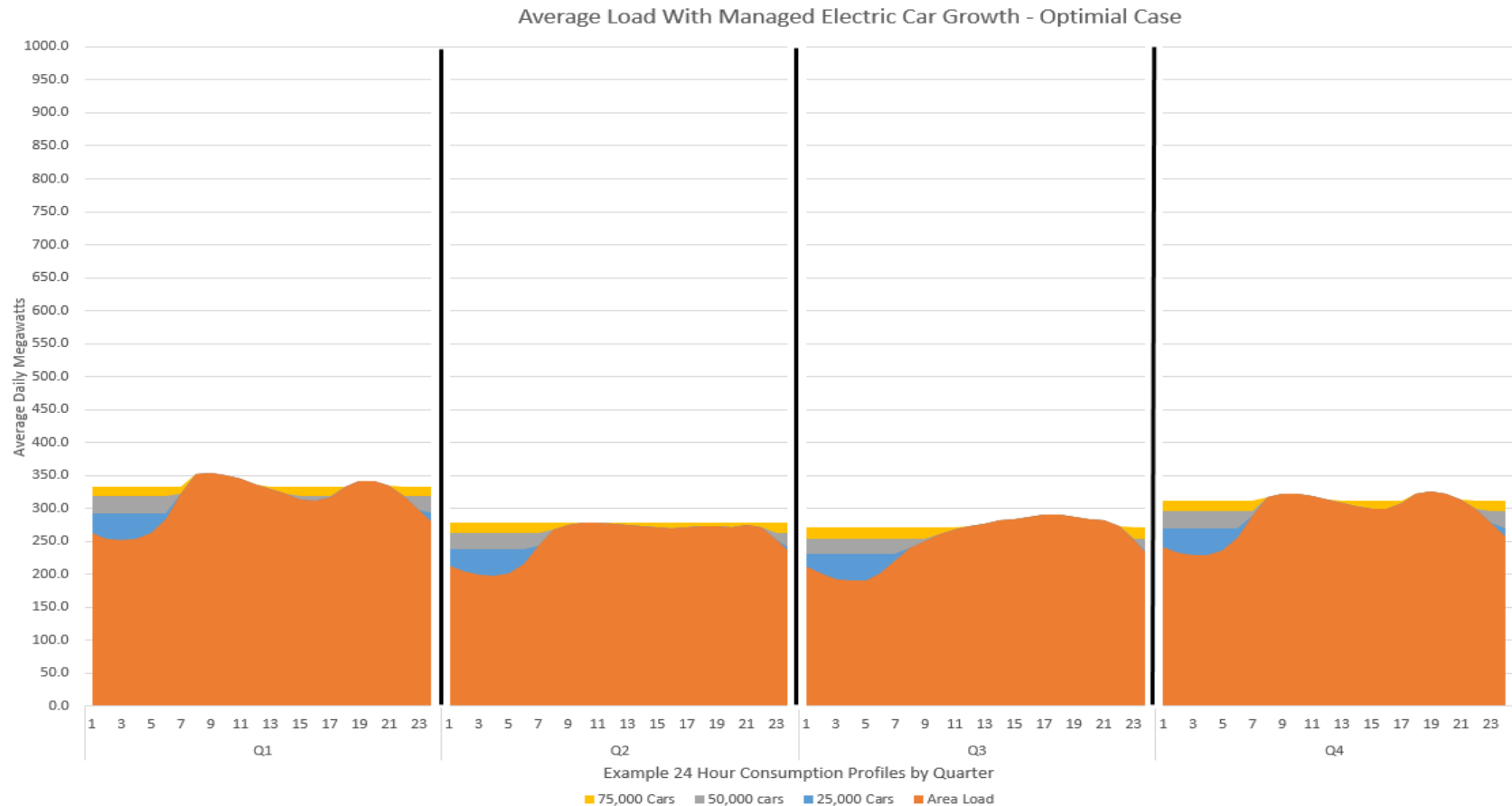
- **Annual Energy Increase is Fairly Small** – About 25 aMW (~10% increase) for 75K EV.



- **Peak Energy is the Issue** – Over 2x peak increase impacting energy, transmission and distribution.
- **Location** - Distribution may be more/less impacted depending on geographic distribution of EVs – more capacity in SE Eugene than West.



- **Strategies to Shape Load are Key** – Price signals can help manage demand impacts by incentivizing charging at night.
- **Time is on Our Side** – Can adapt and plan with targets in mind, but need to start looking at strategies to address potential peak issues.





Thank you!

Early experiments in transportation
The Far Side – Gary Larson



Rely on us.

