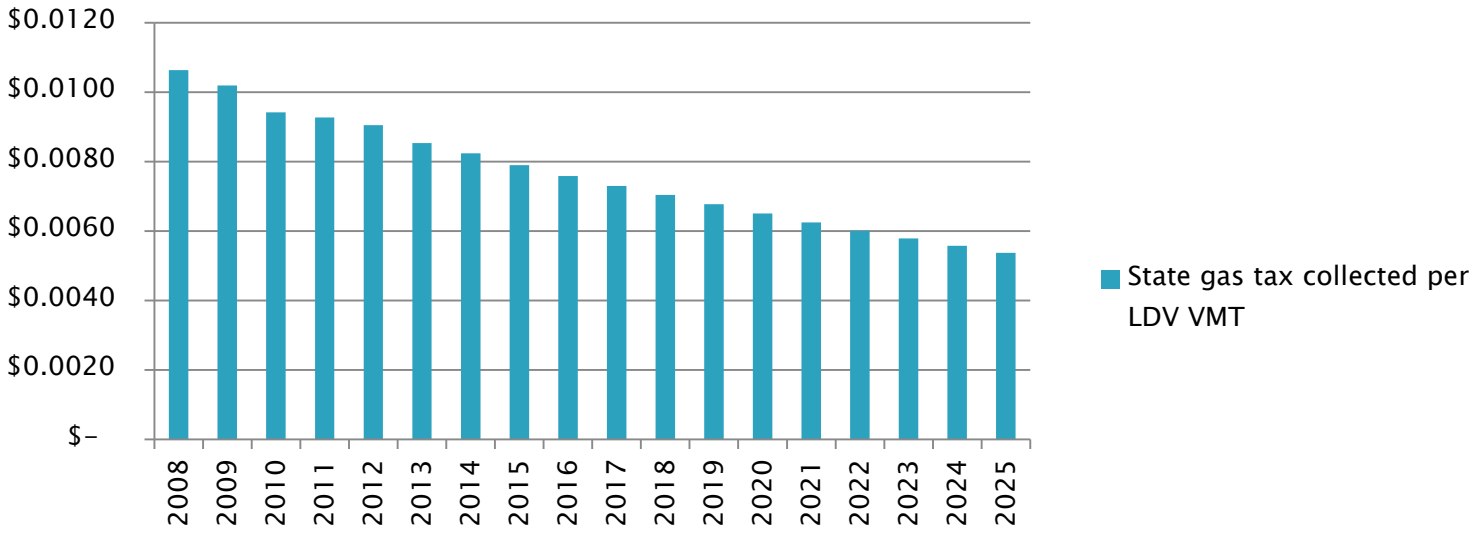
Low-Cost/Low-Tech VMT Fee Collection

A practical implementation pathway

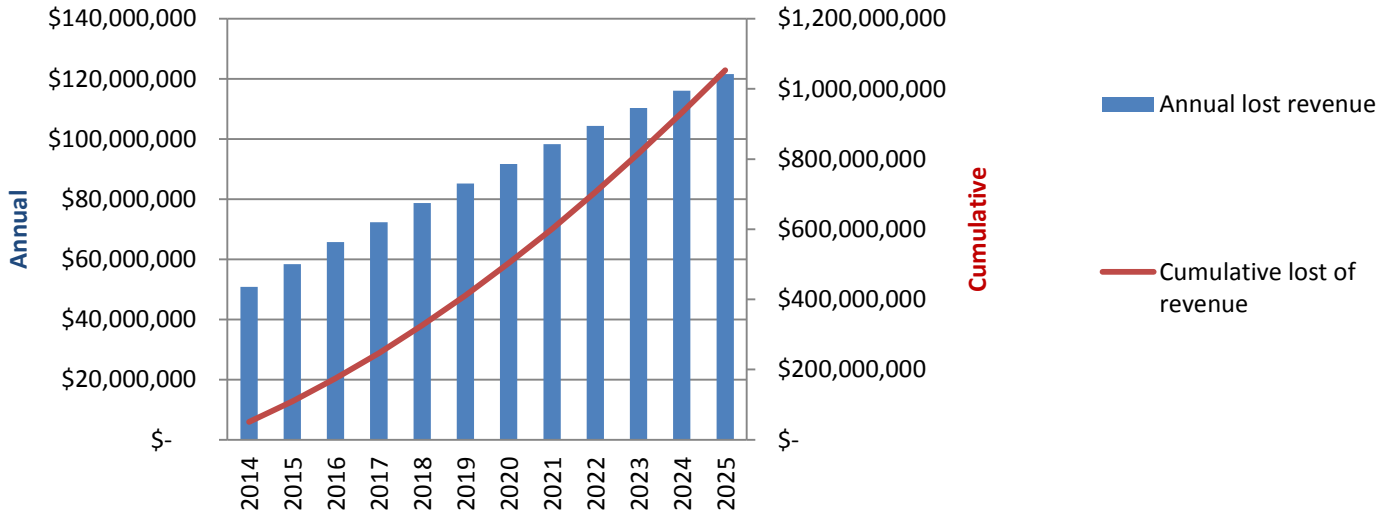
The failing fuel tax: Lost revenue due to increasing fleet economy

Estimated average state gas tax collected per each mile traveled by LDVs in nominal dollars



The failing fuel tax: Lost revenue due to increasing fleet economy

Projected state gas tax revenue loss with decline from 2008 LDV per mile rate of collection in nominal dollars



VMT Fees as a potential solution

- Vehicles in the same class have similar impacts on roadway damage and congestion
- For vehicles in the same class, VMT Fees would collect the same amount for each mile driven regardless of fuel type
- Decouples fuel economy from per mile revenue collection

BUT…

VMT fees have been discussed for more than 20 years, yet significant implementation is always "10-20 years from now"

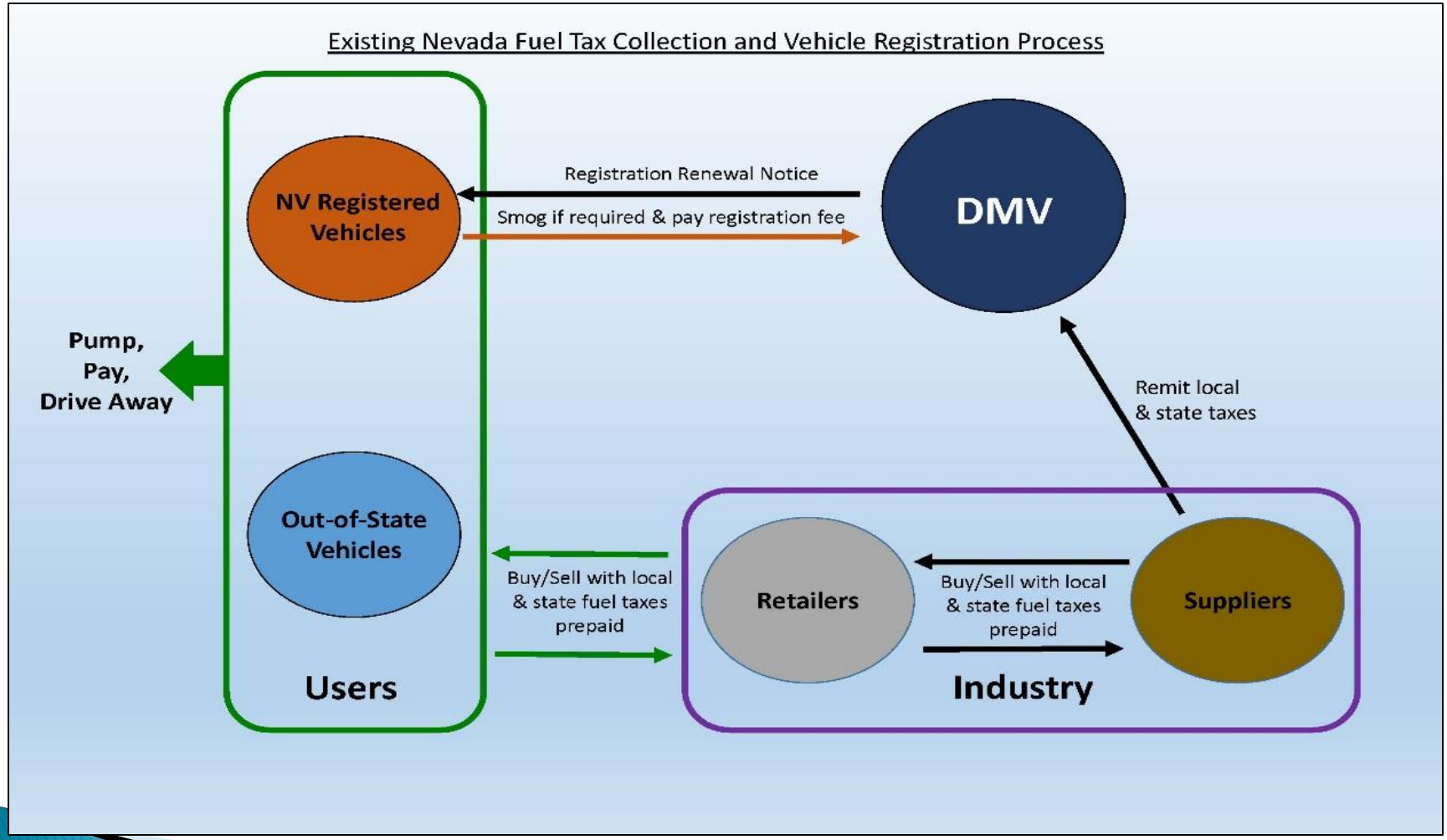
Federal fuel tax collection

- Collected at the refinery or import terminal level from large oil companies
- Direct participants in collection process are the IRS and about 200 other parties
- No direct accounting of where the fuel goes
- Allocation to states based upon a complex estimating process using inconsistent and non-uniform data from the states
- Suppliers, retailers, and users have no active role

Nevada state and local fuel tax collection

- Fuel taxes collected monthly by DMV for approximately 125 fuel suppliers
- State taxes on special fuels used for interstate commerce are further adjusted between the states through the IFTA process
- Direct participants in collection (excluding IFTA) are the DMV and about 125 suppliers
- Retailers/end users (1,710) and motorists (1.8 million in Nevada and ? millions from outside the state) have no active role
- Cost of collection about 4% of revenue

Nevada fuel tax collection



Criteria for any replacement to the fuel tax

- Addresses the privacy concerns of users
- Minimal or no additional effort/cost for industry (e.g. fuel suppliers, fuel retailers)
- Minimal or no additional effort/cost for users (pump-pay-drive away)
- Minimal or no additional burden for administering governmental agencies
- Equity among system participants, and between participants and non-participants
- Revenue reliability (predictable, reliable monthly income)
- Revenue stability (mitigates the revenue impacts of increasing fleet fuel economy)
- Cost of revenue collection is comparable to the current fuel tax system and compatibility with other transactions such as vehicle sales, registration, titling, etc.
- Ability to be implemented on a jurisdictional basis and accommodate outside users
- Ability to incorporate optional technologies and user services
- Longevity (system can be used for 20+ years)
- Ability to deal with any mix of federal, state, and local fuel taxes or VMT Fees and an evolving mix

Any new mechanism must be at least as good as or better than the current fuel tax system

VMT Fee implementation

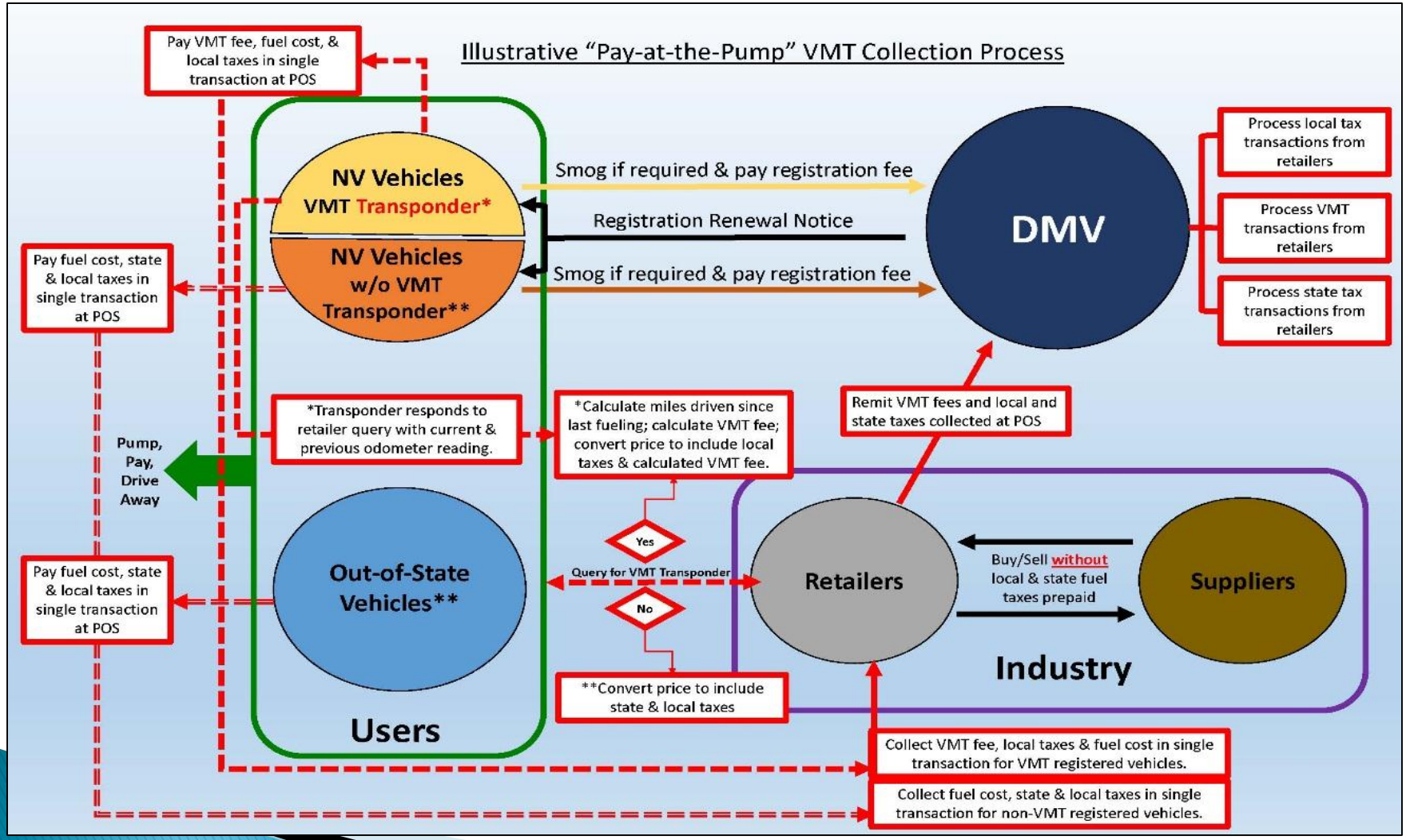
- "Big-bang": Universal implementation across all US jurisdictions
- Incremental: By individual jurisdictions; for selected classes of vehicles
- "Big-bang" but will probably never be done due to politics
- Incremental approach is most likely

Insight into VMT issues: Two illustrative approaches

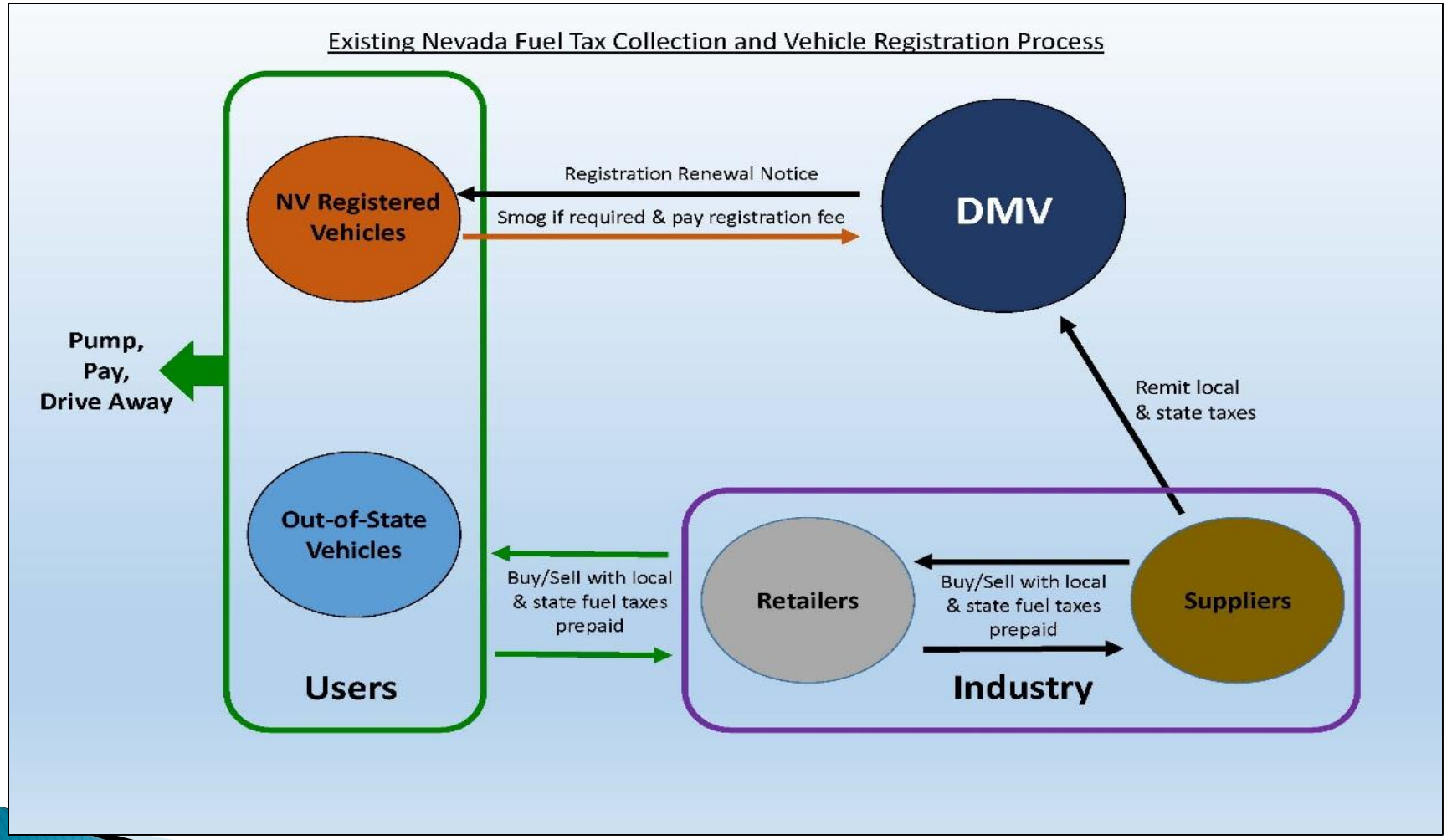
- Simplifying assumptions
  - Odometer based to address privacy issue
  - Incremental implementation
  - Non-enrolled vehicles pay fuel tax instead of a VMT fee
  - "Pump-pay-drive away" experience for all motorists would be maintained

Not all inclusive, many variations are possible, only to illustrate the problems/issues

Illustrative approach: VMT fees paid at the pump



Nevada fuel tax collection



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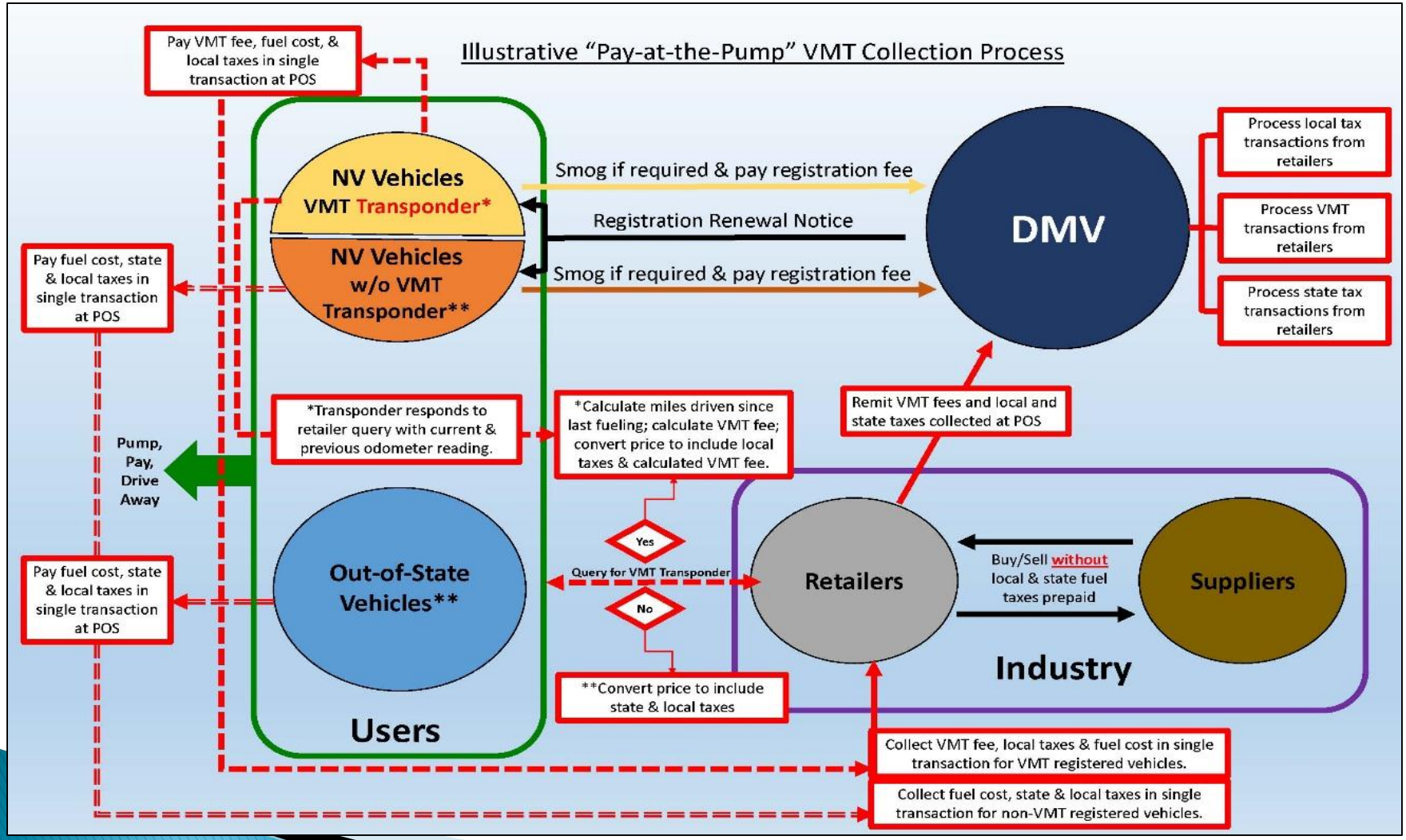
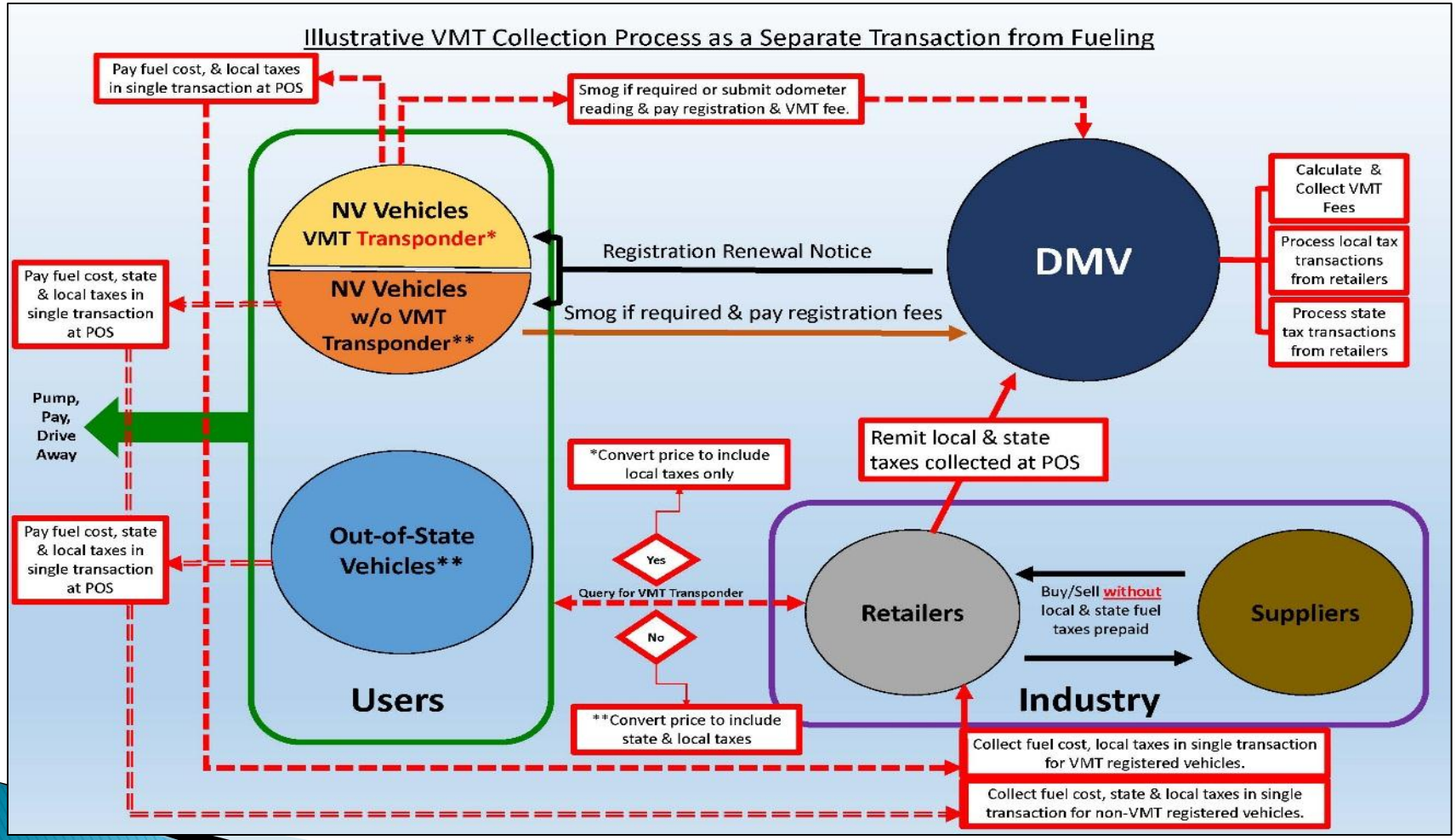
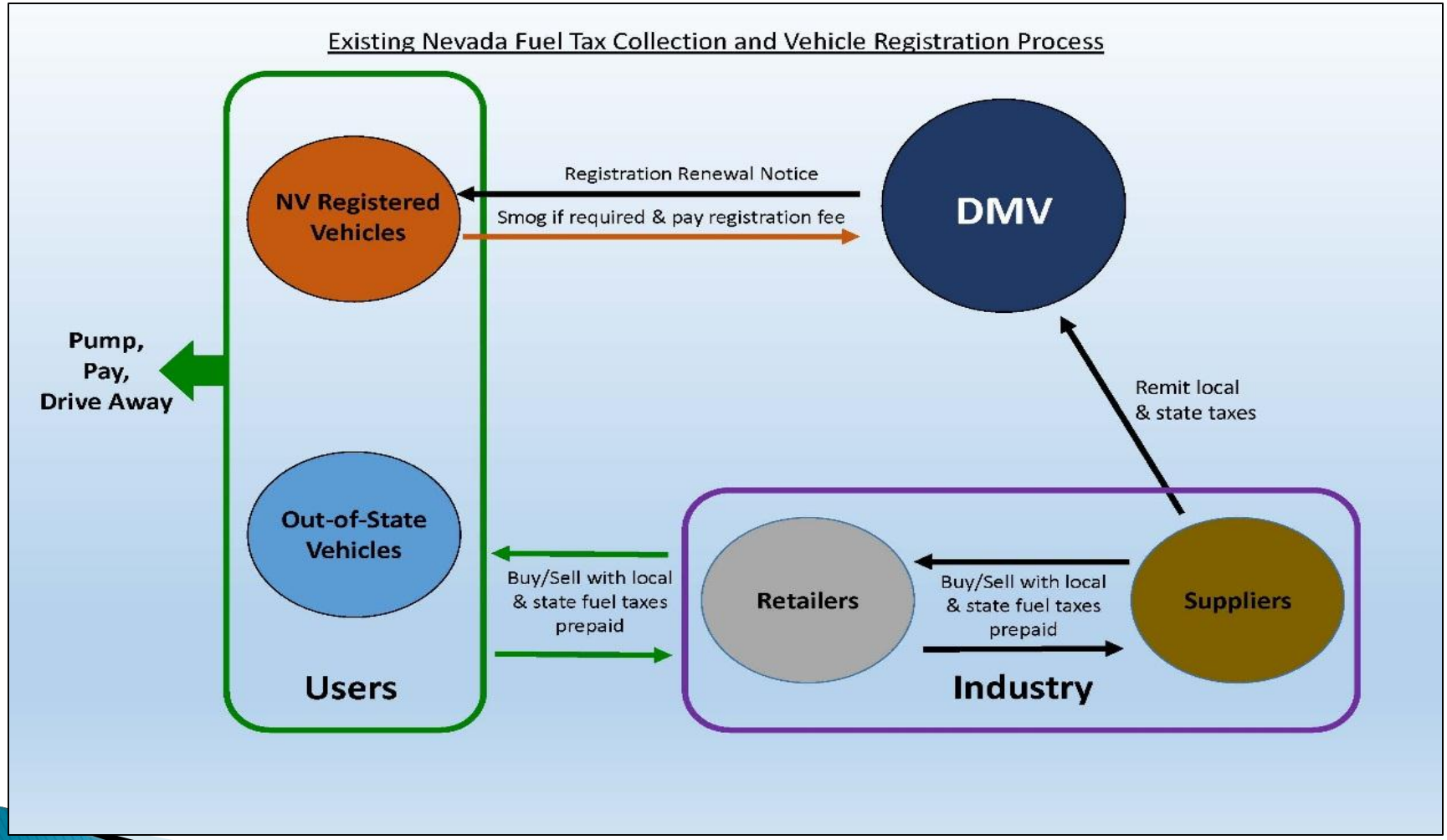


Illustrative approach: VMT fees paid as a separate transaction



Nevada fuel tax collection



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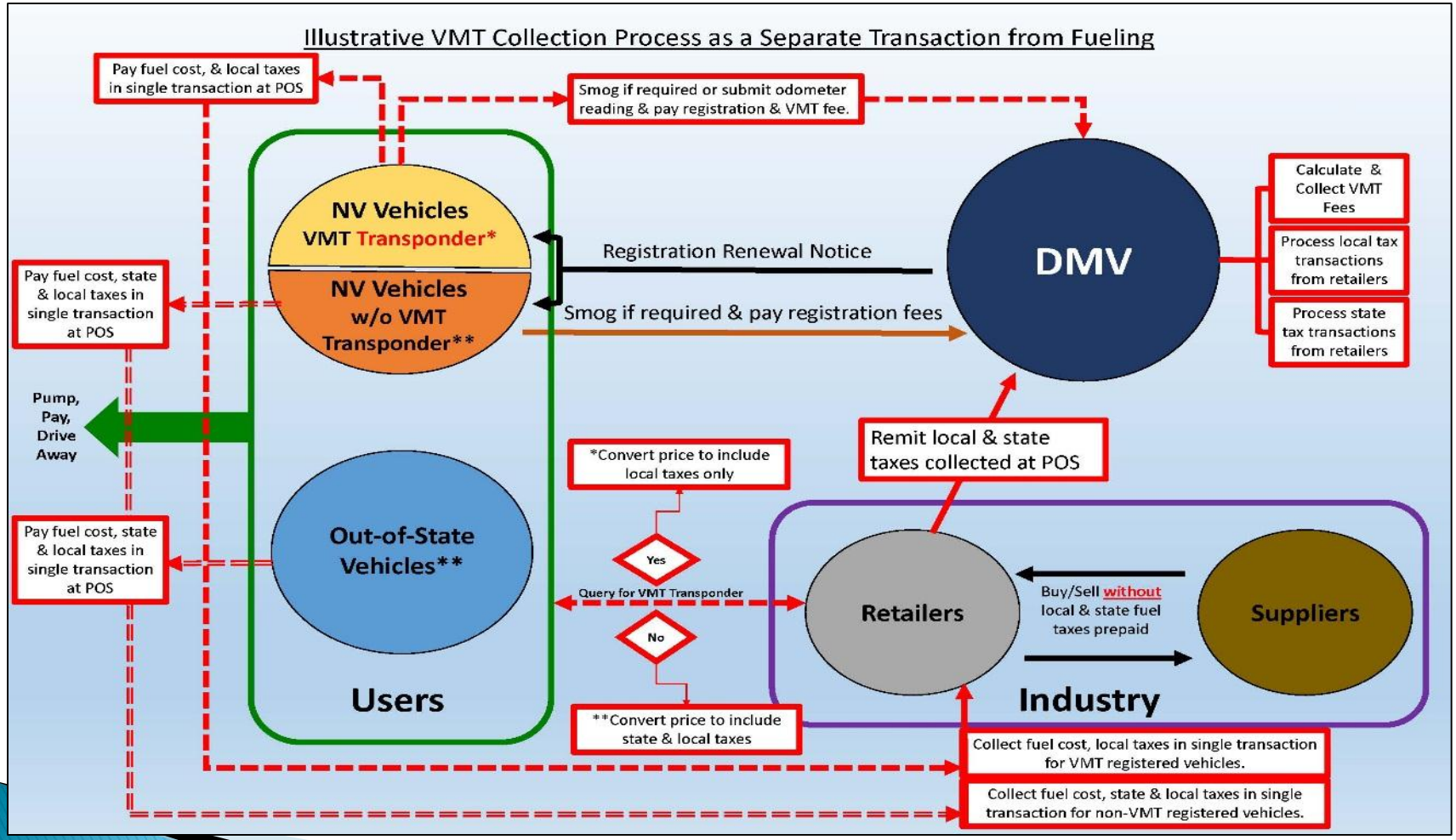


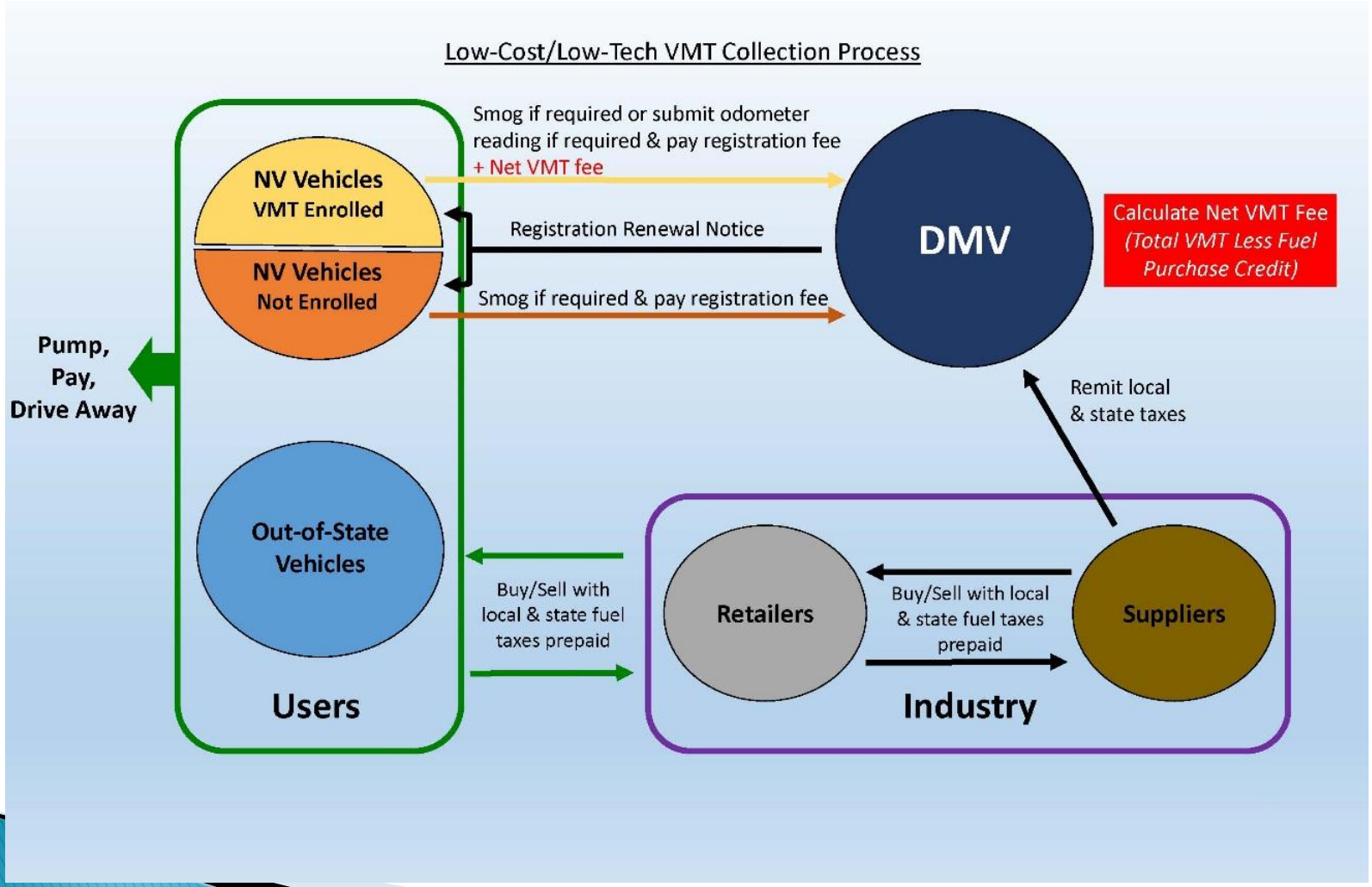
Illustrative approaches: Fatal flaws

- Minimal or no additional effort/cost for industry (e.g. fuel suppliers, fuel retailers)
- Minimal or no additional effort/cost for users
- Minimal or no additional burden for administering governmental agencies
- Cost of revenue collection is comparable to the current fuel tax system and compatibility with other transactions such as vehicle sales, registration, titling, etc.

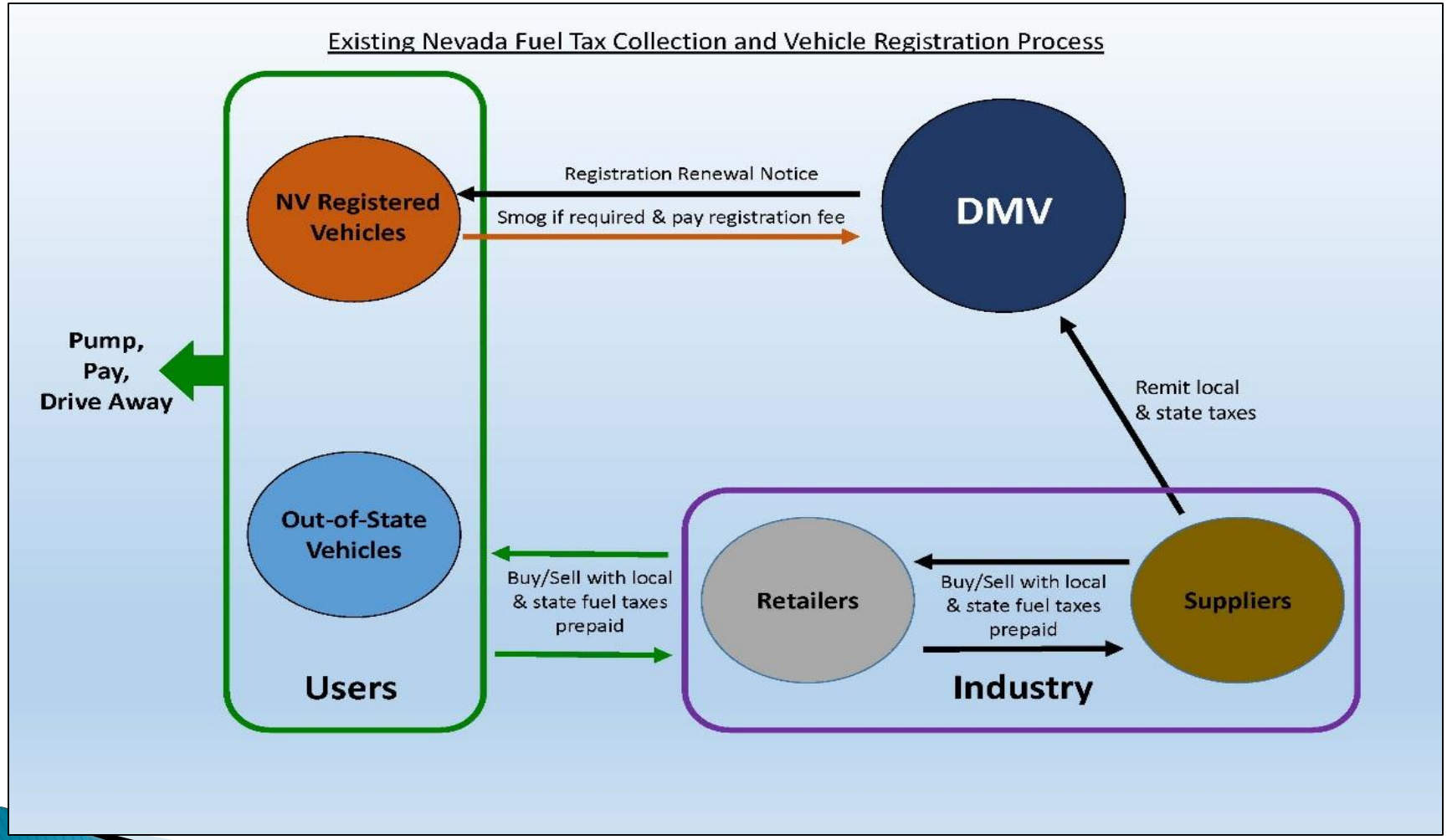
Low-cost/low-tech VMT Fee collection concept

- Odometer based to address privacy issue
- Initially applied only to "light duty vehicles" (LDVs) registered in Nevada
  - 96% of registered vehicles
  - Account for about 89% of VMT
- DMV would continue to collect state and local fuel taxes on all fuel from suppliers
- Non-enrolled vehicles pay fuel tax instead of a VMT fee
- Enrolled vehicles would pay a VMT Fee instead of state fuel tax
- "Pump-pay-drive away" experience for all motorists would be maintained

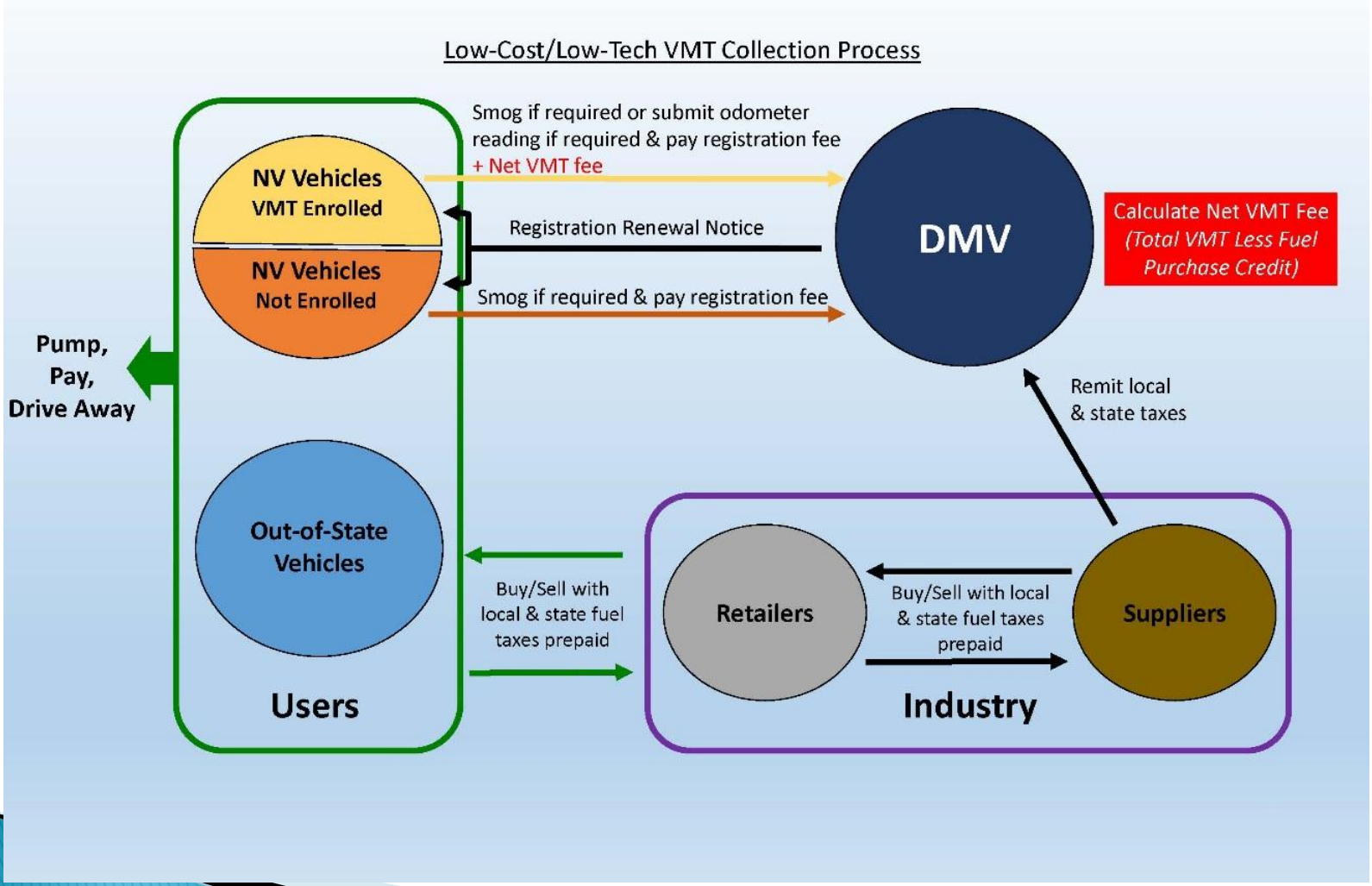
Low-cost/low-tech VMT Fee collection concept



Nevada fuel tax collection



Low-cost/low-tech VMT Fee collection concept



Low-cost/low-tech VMT Fee collection concept: How it works

- All users purchase fuel with the state and local fuel taxes prepaid
- With annual LDV registration, the odometer reading would be reported
  - For most of the 80% of LDVs registered in Clark and Washoe Counties, this would be done automatically through the smog inspection process
  - The remaining 20% of LDVs would be self-reported
- Miles driven since the previous registration are calculated
- A ***Gross VMT Fee*** would be calculated by multiplying the current VMT per mile rate times the number of miles driven
- The gallons of fuel consumed would be automatically estimated based upon the EPA city/highway fuel consumption numbers
- A ***VMT Fee Estimated Fuel Purchase Credit*** would be calculated by multiplying the estimated gallons times the current fuel tax rate
- The VMT Estimated Fuel Purchase Credit would be subtracted from the Gross VMT Fee to determine a Net VMT Fee
- The ***Net VMT Fee*** would be paid with the vehicle registration fees

Low-cost/low-tech VMT Fee: Sample calculation

- Gasoline LDV driven: 18,000 miles
- EPA economy rating: 18 miles per gallon (MPG)
- VMT Fee per mile rate: 1 cent per mile (CPM)
- State gas tax rate: 18.455 cents per gallon (CPG)
- Gross VMT Fee: 18,000 miles X 1 CPM=$180.00
- Estimated gallons purchased: 18,000 miles/18 MPG=1,000 gallons
- VMT Fee Estimated Fuel Purchase Credit: 1,000 gallons X 18.455 CPG=$184.55
- Net VMT Fee: $180.00-$184.55= -$4.55 (Credit)

VMT Fee Estimated Fuel Purchase Credit

- Key to the low-cost/low-tech concept
- An estimate, but estimates are used all the time to reduce administrative burdens and costs:
  - Distribution of federal fuel tax revenues to states
  - Redistribution of state special fuel taxes by IFTA
  - Standard deduction for personal federal income taxes
- Drivers could be offered the choice to use more precise 3rd party services to record fuel consumption, if they desired

Low-cost/low-tech VMT Fee collection concept benefits

- Fuel tax would be collected by DMV from suppliers exactly as it is today
- Retailers would have no change
- All drivers would pump-pay-drive away
- Nevada LDVs would have a minor change in the registration process
- DMV would need to slightly modify the LDV registration process and automated systems

Low-cost/low-tech VMT Fee collection concept benefits

- Collects revenue from out-of-state users without a complex crediting and refund system
- Substantially addresses revenue being lost through increasing fuel economy
- Improves user equity
- Performs as well as or better than the current fuel tax system

Practical implementation pathway of 2-3 years rather than the eternal "10-20 years from now"

Thank you!

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