



Nevada Sustainable Transportation Funding Strategies Project
ADVISORY WORKING GROUP
September 14, 2021



AWG REVENUE PRINCIPLES DISCUSSION

Revenue Principle Concept	Discussion Notes
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SAMPLE
EDUCATION
PRINCIPLE
CONCEPT:
Safe
Environment

School should provide multiple options for students arriving safely to school (bus routes, sidewalks, etc.)

When on campus, students should feel safe being themselves, with avenues available for support if they feel safety being compromised by other student/staff

Guiding Education Principle: Our school will provide the resources and amenities students need to be and feel safe throughout the day, both in school and commuting to/ from school.



Mobility Needs of All Users

[for near-term sufficiency/long-term viability: Capital infrastructure has unique/challenging features: long lead-times, spikes and valleys, planning horizons]

Think about not only people but also products, including import/export of goods to the state (principally via trucks)

Transit, complete streets, bike & ped: what is the split between state and local revenue responsibilities for these times of mobility needs?

Task here to identify long-term sustainable funding source for ndot? Or beyond? Why focused if charge just state system?

State responsibility -- many states fund roadways and transit (state funding) -- NV no funding for public transit at state level.

Rural transit funding -- federal passthrough

AWG charge: state funding. Consider funding for urban transit, mobility needs of all users.

NDOT exclusive to highway building... arterials as well, when rebuilding, should state consider needs of those who cannot or chose to not have a vehicle?



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Ability to move more people in non-single occupancy vehicles -- ties to sustainability of funding.

Land use - third piece of task - mobility needs of all users a part.

Robust mobility system includes public transportation.

Cant figure out sustainable highway funding without addressing land use, transit considerations.

Complete Streets -- all agencies thinking about all users -- desire to make recommendations to expand/ continue? Two buckets -- 1) funding source, 2) what to do to ensure success (includes additional ideas re: social equity, promotes x, y, z)

Variety of revenue sources? Urban vs rural areas. Look at needs of transportation funding across state/ communities. Revenues that meet several different needs? 6-7 taxes to bring where we are today?

Ability to apply local-option factors to tax/fee mechanisms

Ability to address bottlenecks for commuters and trucks

[Flexibility] especially of new funding mechanisms is important to apply to different user needs and modal applications



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One size does not fit all: address user needs where they are, i.e., rural vs. urban users.

Overlaps with user equity -- need to understand impacts on different users. Make sure priorities for one user type don't impact needs of other users (ties to transparency theme as well). Intention good, want higher adoption EVs. Though AVOID punitive impact on other users (ties to user equity).

Bike ped, transit, cars... also consider diversity amongst bikes/ peds, for example. Vegas -- bicyclists -- think of roadies not scooters or mobility impaired and on tricycle. (within modes, diverse users in those modes)

RUC - personal use vehicle - other examples of other modes of transportation being "users" that are taxed? YES - bike taxes to help fund bike lanes.

Consider future technology evolution of modes/users such as driverless cars. Users aren't just what we know today but also what we might imagine in the future (robot-delivered pizza!).



Social Equity

Lower income residents less likely to be able to purchase/own EVs in the near term... but the secondary market for EVs will take off soon, especially when multi-family residential charging becomes more prevalent.

Don't create additional hurdles for low-income households to be able to purchase/own/access EVs

Consider EV owners are spending money on a societal good regardless of income level (hard to hear-- is that close?)

Go back to basics -- our community has information to educate on emerging technology, how to access affordable vehicles/ robust marketing. Access to various types of messaging. Everyone needs to be informed.

EVs, transit -- success is transportation cost burden on individual budget, time it takes to travel from point a to point b and related costs. (overall cost burden, cost measured by time spent)



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Market will dictate... if EVs expensive, transition period and transitioning revenue impacts. Will be a transition.

Funding will be used to support infrastructure - demand for infrastructure by land use changes. When discussing equity, must understand those paying for new infrastructure -- makes case for needing to make connection to land use patterns that drive future transportation investment needs. Land use had equity perspective.

Transportation burden - some pay more to drive on system (car ownership costs, fuel costs more burdensome to low income). Total transportation burden (revenue, transit as option so don't need to own car).

Modern efficient sustainable public transportation is socially and user equitable, so thinking about how revenue can be spent on these modes supports the principles of user and social equity



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	<p>Lower-income residents unable to afford new vehicles -- vehicle property tax structured tied to purchasing vehicles. Newer vehicle, registration more expensive. Good to keep in mind.</p> <p>Those who use the system are paying for it. Those who have ability to pay are paying for it.</p>
User Equity	<p>Developments/growth put pressure on NDOT/state ability to maintain infrastructure → local/state share when approving development (current vs. future users)</p> <p>User pay a very important principle because people value what they (have to) pay for and this helps with matching provision of infrastructure (limited resource) with appreciation for it</p>



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Balance user equity with simplicity. As a cyclist I don't mind paying extra if I get something for it. As an EV driver, ibid. But keep it simple to pay/administer.

Question -- look at splitting up types of users/ more narrowly define?

How other taxes support transportation system (hidden, not hidden) -- transit funded in many different ways. When ride bus, on local route -- more efficient use of ROW than if in SOV. Equity around space utilization by various users. Ties to user pays. Equity of spatial use/ characteristics of usage.

Equity -- tangible asset (road, bike lane, ped crossing) -- here's what getting out of it. (tie to user pays) not transparent where user fees are going to pay for maintaining infrastructure being used.

Trucks = ~6% VMT, $\frac{1}{3}$ of revenue to highway fund. We don't mind paying that. Think about not just infrastructure as assets and how they're literally



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	<p>paid for but also what that infrastructure enables for economic activity and the value that creates more broadly.</p>
<p>Greenhouse Gas Emissions</p>	<p>[Transparency] User fee element will be present regardless of what we do (use more/pay more... that crumbles with EV adoption). Let's not just "not get in the way" of state goals for EV adoption but also let's align with net reduction in GHG.</p> <p>EV conversation for climate change is a societal good. But will ICE drivers blame EVs for potholes? We are at the beginning of a transition so let's treat early phase mechanism as a pilot (?) recognizing we have a long way to go to full conversion.</p> <p>GHG reduction extends beyond just EVs but also how we get around overall.</p>



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Gas tax is a form of carbon tax (even if that is not the intent). Everyone who uses the road should pay for it.

Transpo emissions biggest cause of emission -- second is construction. Are we willing to use this sustainable funding to build roads, etc. -- are we going to think about sustainable construction/ design practices? GHG emissions, shouldn't ignore construction; how MPOs/DOT implement specifications tied to green construction. EV - upstream energy argument is similar (how clean is energy being used by EVs).

Pigouvian -- avoid unintended outcomes. REvenue source can encourage reduction in GHGs -- 1) encourage adoption of lower emission vehicles. 2) to extent it drives reduction in driving, also can reduce GHG emissions. Both can help us achieve desired outcomes. Be careful to create same situation we are by incentivizing in excess in certain areas.

Opportunity for small biz development with GHG emissions -- phase out fuel use vehicles -- data or tech firm to help with conversion to help address



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GHG emissions piece. Phase out fuel consumption vehicles, reuse a different way.

[Process] Will AWG recommendation require voter approval? 2026 fuel indexing sunsets, language of legislation says go back to voters. Education piece needed. If has to be voter approved, be careful dont throw out baby with bathwater. Especially if looking at a range of revenue sources being voted on at once. [answer - depends on final recommendations of AWG -- too early; might be multiple pieces of legislation. Some just by state leg, others are ballot initiatives with voters.]

If foundation is user pay, and we incentivize EV adoption, still need to capture the importance of those who use the system paying, dependent on system being used.



User Pays

Fees are targeted to specific purpose whereas taxes can be moved by lawmakers to other uses. Fee structure makes it easier to dedicate revenue sources (esp in light of need to provide long-lead, long-term investments for infrastructure)

Gas tax + constitutional dedication to roads = user fee

GST by contrast has always been a general purpose tax.

User fees collected incrementally (like gas tax) as opposed to large one-time payments ← connects to [**Social Equity**] social component

Installment payments have logistical challenges

Transparent -- people “get what they pay for” -- equitable between users and types. IE tolling -- not popular here, social equity considerations to keep in mind.



How much should of system should user pay for?

- As broad as possible -- helps with resiliency during recession
- Type of currency (e.g., crypto) -- need to think about future of transportation system and how we are paying for system. Ties to first principle of technology
- Those who are using bikes/ pedestrians/ transit users saving a lot of space... they are users are “paying” in a different way (their time) and help create capacity on network. Different on type of user, what constitutes “paying” for system being used

Need to keep perspective of other objectives (user pay is perhaps emphasized because it's easy to understand, but need to balance with other objectives)

MOre closely linked to use, better we drive outcomes we are looking for. Just a flat fee... might have buffet mentality (want to avoid!). Pay a la carte - eat less.



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Revenue
Diversification

Important

Great strategy but cuts against transparency with it. Ability to raise revenue - has counter relationship with transparency. Bit of tension to resolve.

Road usage credits for new development -- way to share negative externalities with those benefiting?

Road usage credits are fine grained, if it is too fine grained it can set up "you're using my money to pay for someone else's benefit." Accounting challenges can undermine simplicity and understanding/support.

Tribal example: majority of taxes go to public services/social programs, with 0% to roads, maintenance of buildings. Recent effort to try and diversify funding and partner with state for project funding (50/50). Stakeholder and user education is essential for change (could be more complicated if multiple mechanisms); tribal preferences/priorities tend to be bike/ped over auto purchases. Community awareness includes "what it means to me" wrt to all of the principles, reflected for example in developer requirement to give back



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to communities. <--great thoughts on all the principles, we will pull this apart into the various principle theme categories :)

Coming out of recession, if identify fee or tax model, if based on one model subject to changing market/ downturns... 2016 went to public tied to recession at the time. Mechanism we chose, needs to align with AWG goals and bullet proof against changes in economy. Otherwise run risk of identifying a mechanism that no longer does job (**near/ long-term sufficiency components**).

Engaging stakeholders/ communities/ developers -- look at engaging private sector (ie tech/ innovation sectors in NV -- stakeholders with product/ service related to technology that focused on transportation in some way). Ex. Tesla contributes to funding that could be built up through engaging these tech industries

Ability to leverage private dollars. Ex. invest in charging infrastructure.



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Efficiency and
Ease of
Compliance

Think about the customer service representative at DMV. Start with can we explain it to the customer? Big brother tracking concerns (at DMV re vehicle fees?).

RTC - regional authority - need to consider jurisdictions.

FRI 2012/13 - road usage charges discussed. Roadblock from other areas -- too diverse in specific usage (what road is charge applied). Concerns over being monitored. Good model for distributing funds here -- whatever new methods arise, keep distribution methods close to today so less confusing. Keep simple.

May be easy, but not efficient initially. Need to think about scalability. IE Utah road usage charge for EVs - not scalable yet but will be in future (connect to near-term vs long-term sufficiency as well).



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Near-Term
Sufficiency

Important

Both!

Newer revenues for fleet/ portion of fleet, might not be sufficient in near-term, but relevant in long-term. Know there is large long-term shortfall. Already behind, but if new revenue source less sufficient in first few years, may still be worth it.

[Process] Is there a time component? Need money now.

Near-term incentives for EVs will have impacts on fuel tax collections. Near-term focus.



Long-Term
Sufficiency

Important

Technology will be changing a lot over next few years. Transportation services, autonomous vehicles (focus in NV). Mobility changing entirely. Labor focused on today. If constitution revisited, takes long time. How to be tech agnostic. Timing of solution must be considered.

Resiliency of solutions to economy AND technology. Mobility being disrupted by more than just EV.

Look now at long-term impacts.

Bonds have been sold to be repaid from gas tax revenues, that needs to be considered as part of the long-term sufficiency concept.

- FRI revenues backing bonds for 20 years. 3-year demonstration to bond for bonds. Does not sunset, stops growing but doesn't sunset. Hope to come up with something "better," if not, 10 more years if positive vote in 2026. Then becomes rolling model.



- Inflation will stop, but construction costs wont.

AV impacts on driving patterns -- what if actions taken now result in less driving, still need to maintain roads. Externalities to consider. Successful here, unintended negative consequences on funding model in different way.

Transparency

Transparency is good - you need it :)

Multiple dimensions: Process transparency as well as tax transparency

Tax transparency = how much it is, how to pay, why they're paying (and keep it simple -- ties to ease of compliance)

No matter results of AWG, moving through legislature. All communities have unique needs. What works in Clark County wont work in Elko. Local residents need to understand local impacts of this statewide effort. Need to be transparent, honest, and make it simple.



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Flexibility	<p>Important -- some funding too restrictive for different modes of transportation -- provide flexibility for modes other than the car</p> <p>Various lenses to look at flexibility: (1) wrt vehicle technology, consumer technology, other trends (2) wrt specifically the potential hockey stick curve of EV adoption, so responsiveness to that trend is important without impeding it</p> <p>Agnostic with regard to fuel source -- not just EV but hydrogen powered vehicles and other future possible innovations</p>



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“Special fuel tax” = based on diesel gallon equivalent is an example of flexibility in construction of the tax law. Rate setting tied to energy enables a form of flexibility.

Regional differences require flexibility to support/enable local implementation

. If overall package is reliant on local implementation, then certain Counties aren't able to act and it undermines entire effort, need to be wary/ thoughtful of that.

Being able to fund across modes... can be criticized when money spent not on roads. AWG principles to help evaluate potential revenue sources. Not cut-dry, yes/no.



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	<p>Future - work from home → reduced driving. If not going to work, school, all moving online → less people moving around. Potential to reduce revenues (same way transition to EVs will impact).</p> <p>Responsible to be flexibility with perspectives of air industry (another mode) -- ties to technology. May have drones delivering packages to homes. Being flexible with industries, modes of transportation.</p>
<p>What did we miss?</p>	<p>Economic climate as new focus area? Pandemic taught us to be prepared for economic upheaval. → funding resiliency.</p> <p>Transportation as a utility. Provide service regardless of users. Seen during pandemic (transit). Always want emergency vehicle to come. Looking at assessment fees in Carson City -- value tied to property. Developers paying</p>



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	<p>for impacts. Users paying impacts for carbon. Benefit for transpo/ mobility on property</p>
<p>What was discussed that could be de-emphasized?</p>	<p>Remove ego/ different responsibilities. Pyramid example, local contribution when roads are expanded. What about when revenues go up from local to state. How state local relationship plays, how money can move different directions.</p>



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Mobility Needs of All
Users