Vehicle Kilometers Travelled linkage to home and attraction

TransLink April 2024













- The RTM VKT results are based on the trips' origin and destination,
 i.e., VKT is attributed to trips' start and end
- Growing interest in the linkage of VKT to the home and attraction (e.g., workplace) TAZ





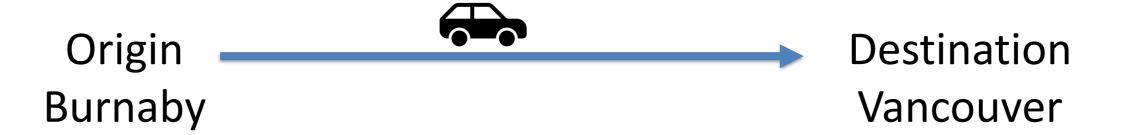




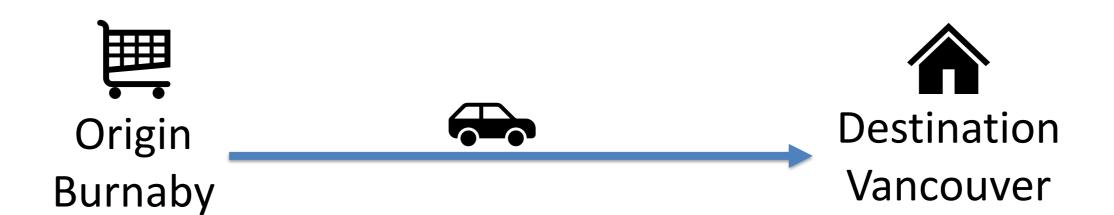




Before



After















Before

Origin
Coquitlam

Destination
Langley

Origin
Origin
Origin
Origin

Coquitlam



After

Richmond









Langley



- Sample of projects that benefit from this tool are:
 - Emissions created by TAZ residents
 - Commute VKT attributed to workplace location
 - Prioritizing EV stations based on TAZ residents with high VKT and TAZ attractions with high VKT users











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- Issues addressed:
 - RTM allows PNR facilities to go over capacity
 - TAZ residents can choose only one PNR facility

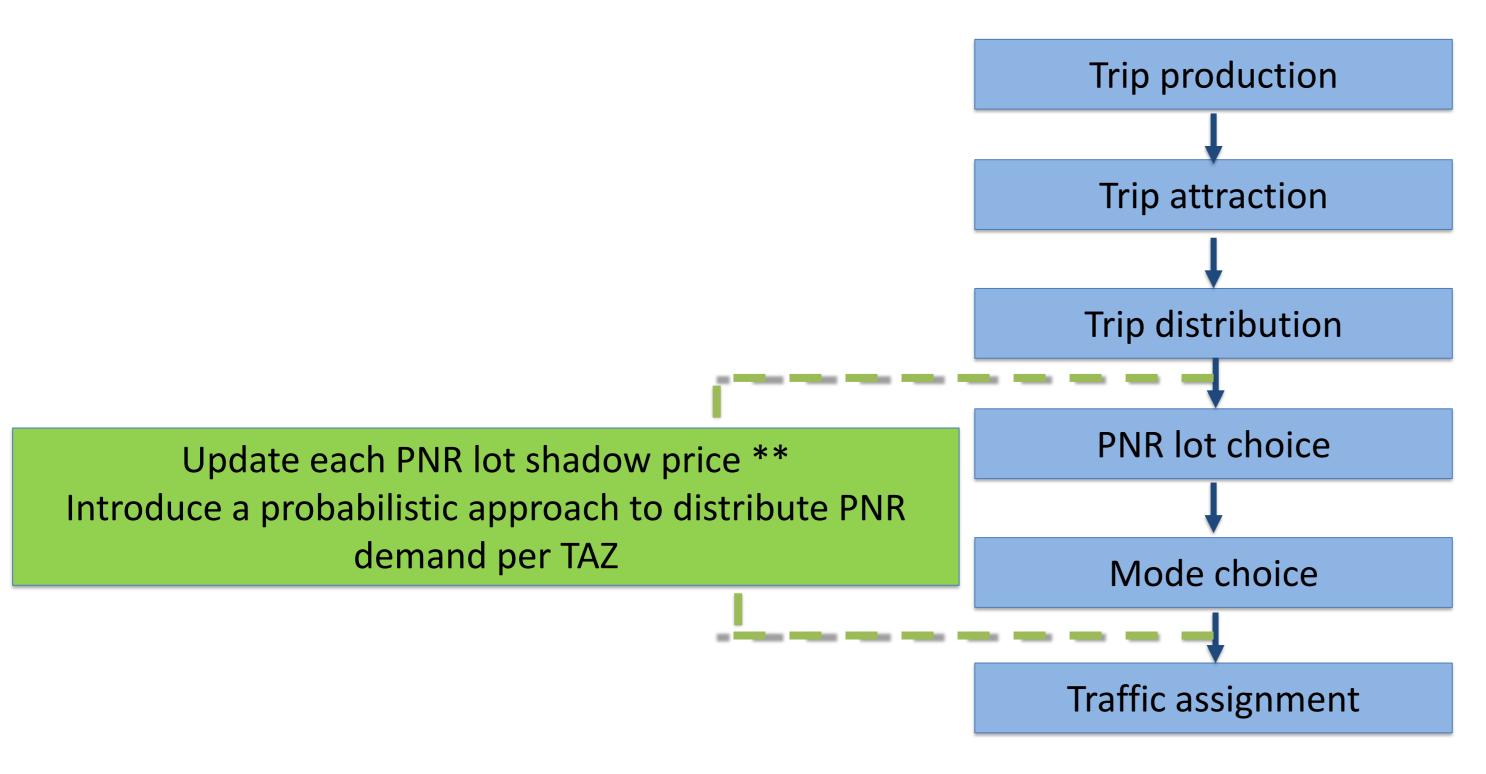












** stop when overflown lot demand matches the capacity













Before

STA A

PNR Lot A

Capacity: 1200

RTM Demand: 2000

Parking cost: \$3.00

PNR Lot B

Capacity: 300

RTM Demand: 700

STA B

Parking cost: \$2.50

STA B

PNR Lot C

Capacity: 600

RTM Demand: 900

STA C

Parking cost: \$3.50

STA C

After

STA A

PNR Lot A

Capacity: 1200

RTM Demand: 1200

Parking cost: \$3.00

Shadow price: \$2.00

PNR Lot B

Capacity: 300

RTM Demand: 300

Parking cost: \$2.50

Shadow price: \$2.00

PNR Lot C

Capacity: 600

RTM Demand: 600

Parking cost: \$3.50

Shadow price: \$1.50

STA B

Before

STA A

PNR Lot A

Capacity: 1200

RTM Demand: 2400

Parking cost: \$3.00

PNR Lot B

Capacity: 0

RTM Demand: 0

Parking cost: NA

STA B

PNR Lot C

Capacity: 600

RTM Demand: 1200

STA C

Parking cost: \$3.50

STA C

After

STA A

PNR Lot A

Capacity: 1200

RTM Demand: 1200

Parking cost: \$3.00

Shadow price: \$2.50

PNR Lot B

Capacity: 0

RTM Demand: 0

Parking cost: NA

Shadow price: NA

PNR Lot C

Capacity: 600

RTM Demand: 600

Parking cost: \$3.50

Shadow price: \$2.00

- Sample of projects that benefit from this tool are:
 - Study PNR lot pricing
 - Investigate PNR lot capacity impact on travel behavior









