PNNL-UTM December 2022

December 22/23, 2022

SE Asia Digitalization Project

Agenda
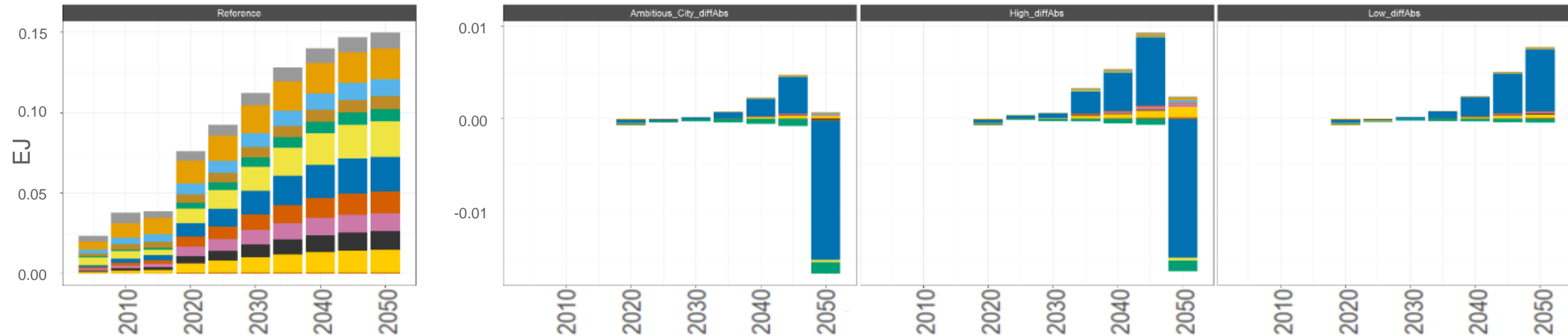
- Trip Logistics
- Modeling Results
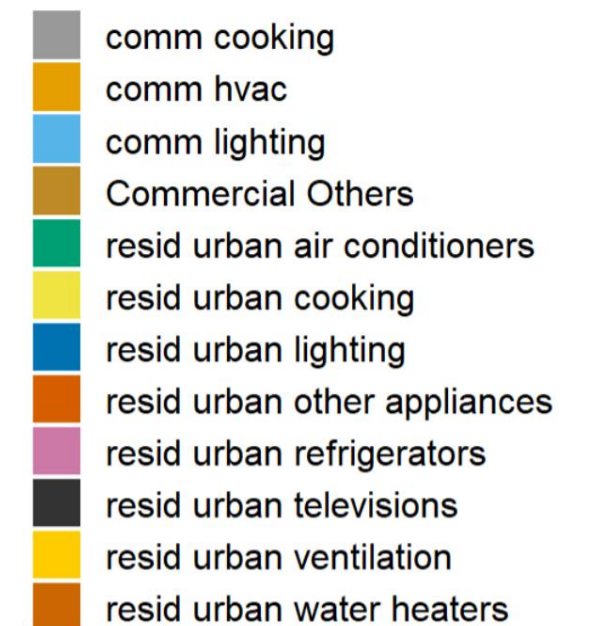
Trip Logistics

- Car service recommendations?

- Tuesday, January 10th meeting with the Mayor. Is this "courtesy call" a phone call, or a meeting in person?

Results – Buildings (BEFORE)

Building Final Energy by Subsector (Kuala Lumpur)
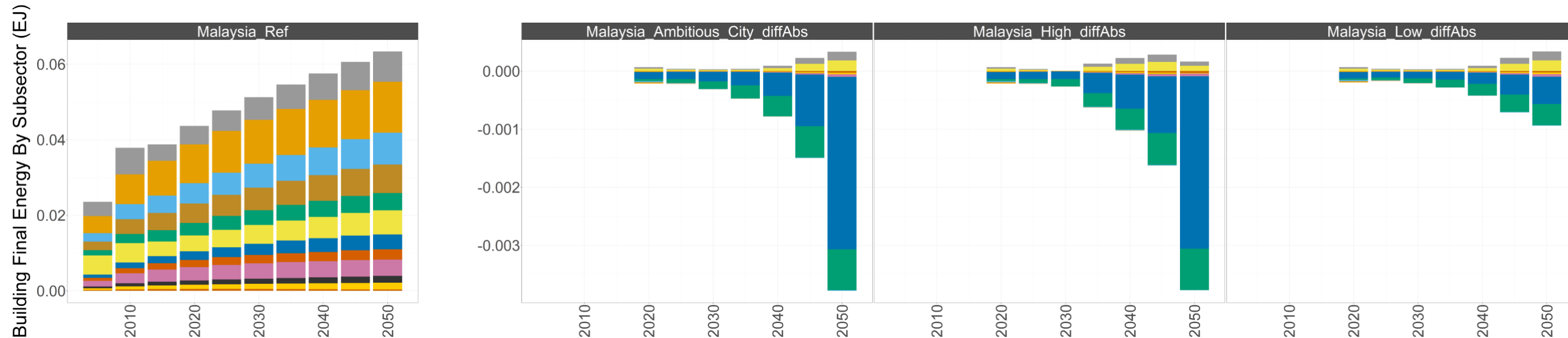

Issues: Jump in energy consumption from 2015 to 2020, lighting energy demand increasing in policy scenarios, inaccurate subsector distribution.

Legend:
- comm cooking
- comm hvac
- comm lighting
- Commercial Others
- resid urban air conditioners
- resid urban cooking
- resid urban lighting
- resid urban other appliances
- resid urban refrigerators
- resid urban televisions
- resid urban ventilation
- resid urban water heaters

Results – Buildings (NEW)

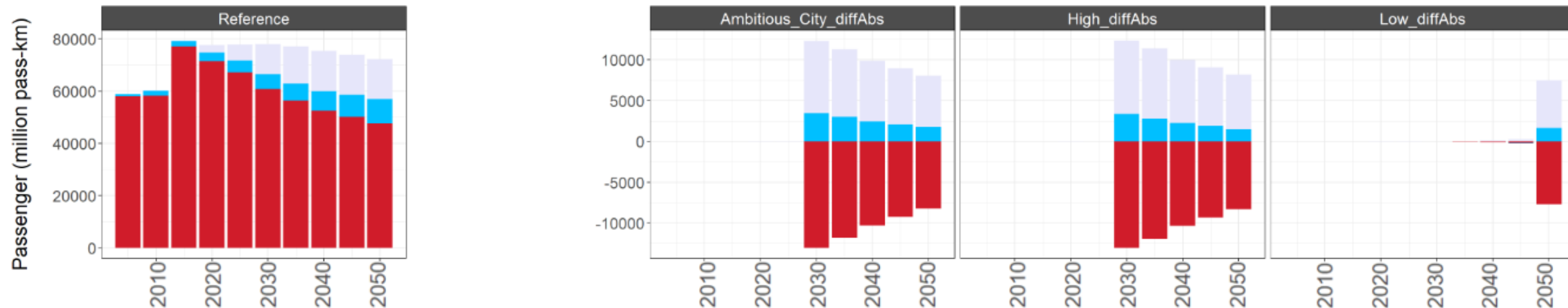Building Final Energy by Subsector (Kuala Lumpur)

Policies modeled: High efficiency appliances, High efficiency lighting.

Still not seeing much of a reduction in energy consumption. Are there additional buildings policies to model? Building energy codes (would only impact new buildings), appliance standards?

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Results - Transportation

Passenger Transportation Demand by Fuel (Kuala Lumpur)

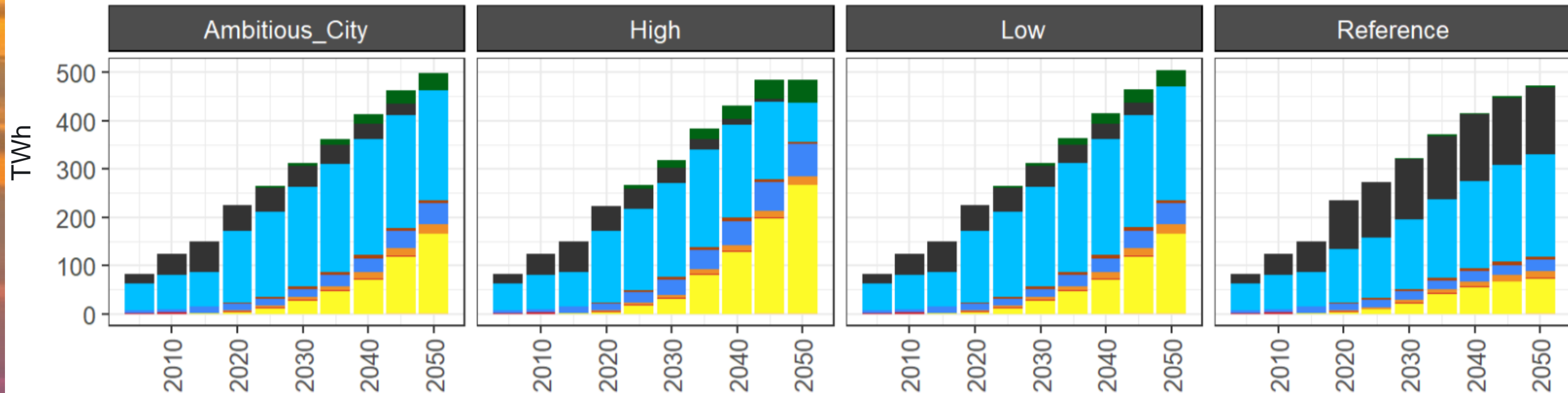Policies modeled: Passenger ICE phaseout, **modal shift not yet implemented.**
- For modal shift: Is the 2015 split (80% private, 20% public) based on transport energy consumption or service demand?

Would it be more accurate to force a phaseout of ICE vehicles (current), or implement a policy that reduces the cost of EVs?

Are there any freight policies to implement?

Legend:
- electricity
- gas
- hydrogen
- liquids

Results – Electricity Generation

Electricity Generation by Fuel (Malaysia)

Policies modeled: Coal phaseout, increased renewable energy (solar, biomass, and hydro).

Coal is phased out by 2050 in all scenarios, more aggressively in High.

Increased energy generation from solar, biomass, and hydro, to reflect values found in the KL 2030 Low Carbon Society Blueprint and feedback from UTM.

Thank you