## Candidate Questions Relating to the Fleet Electrification Study

Note: These questions relate to the files provided in response to PRR 6410.

**Question 1: The WA RCW 43.19.648 requires cities to find practicable ways to switch their fuel usage to electricity or bio-fuel.**

Washington's existing fleet electrification law RCW 43.19.648(2)(a) requires that local governments use electricity or biofuel for all vessels, vehicles, and construction equipment "to the extent determined practicable." WAC 194-29-020 (7) defines practicable to mean: "…the extent to which alternative fuels and vehicle technologies can be used to displace gasoline and diesel fuel in vehicles, as determined by multiple dynamic factors including cost and availability of fuels and vehicles, changes in fueling infrastructure, operations, maintenance, technical feasibility, implementation costs, and other factors."

**Question 2: In the documents presented i didn't see any evaluation of bio-fuel. Did we evaluate the ROI for the city between electricity and bio-fuel?**

The Fleet Electrification Study includes a recommendation for the City to replace diesel with R99 biofuel. R99 is a blend of diesel derived from sustainability sourced renewable materials such as vegetable oils and animal fats. This recommendation came from an evaluation of the associated emissions reduction from switching heavy-duty diesel vehicles to R99 fuel.

R99 is referenced on pages 4, 7, and 10 of the Final Fleet Electrification Study Report:

- "EV alternatives for critical response and heavy-duty fleet are not yet able to meet operational requirements. In these cases, interim transition to R99 fuel, HEV, or PHEV is recommended." (Page 7).
- "Near-term solutions also switch 16 vehicles to R99 drop-in diesel replacement. R99 functions identically to fossil fuel, with about 66% lower emissions and without major performance or maintenance impacts. Further evaluation by the City's facilities team will be required to review sourcing, pricing, distribution, and storage of R99 fuel." (Page 7).

The City recently installed an R99 fuel tank at the Maintenance and Operations Center. The tank is empty at the moment while we wait for a controller. Staff anticipate the tank will be operational in June barring any unforeseen setbacks.

**Question 3: Is my understanding that the total cost of electrification of the fleet is around ~$10.7MM (i remember seeing this number in the presentation front he consultant). Does that number include estimates for insurance and repair costs?**

The rough-order-of-magnitude cost to electrify 100% of eligible City fleet and to provide recommended charging infrastructure by 2050 is $15.7 million in 2024 dollars. See Figure 18 on page 10 of the Final Fleet Electrification Study Report.

Fleet maintenance is estimated to cost approximately $18,000 per year. Additional detail on the breakdown of costs is available on pages 10-11. Insurance was not included in the estimate.

**Question 4: Is there a simpler doc/PDF that provides the execution plan for 100% electrification?**

Please refer to pages 7-12 of the Final Fleet Electrification Study Report. The graphics, charts, and descriptions on those pages outline the plan for electrification through 2050 and are supported by the EV Charging Equipment and Cost Schedule excel document.

**Question 5: In the light of the bomb cyclone where we lost power for 8 days in various sub-divisions, are we re-evaluating this project? If not, why not?**

The City is not re-evaluating the project as a result of the recent bomb cyclone. This Study's recommendations outline investments in electric service and charging infrastructure for the City to electrify its fleet to reduce municipal transportation emissions through 2050.

Back Up Power is covered on page 4 of the Final Report: "As the City transitions to EVs, reliable backup power sources will be needed to ensure operations can continue through electrical disruptions. Diesel generators are recommended as they are readily available, reliable, and relatively inexpensive at about $70,000 per unit based on current available information."