**7. Budget Narrative**

Washington State Department of Commerce (Commerce) is applying for $81,896,196 to implement the Climate Pollution Reduction Grant (Tier C). Through a successful implementation of this grant, Commerce will help overburdened communities with their GHG emissions, strive for more environmental justice impact, strengthen Washington’s vocational workforce, and anticipate avoiding nearly 340,000 metric tons GHG emissions statewide through 2050. This application includes eight Tribal and local projects and one statewide program across seven GHG reduction measures, including: VMT reduction through water transportation, decarbonization of rail infrastructure, vehicle-to-grid integration for resilience, Tribal fleet electrification, Tribal clean energy grant program, decarbonization of district energy systems and anaerobic digesters. All measures have been included in the Washington State Priority Climate Action Plan.[[1]](#footnote-1) Detailed budgets and assumptions to implement each measure are included under separate tabs in the budget detail (“Budgetcalc” attachment).

As the lead entity, Commerce has identified costs associated with the successful management of all subawards. These costs are shown under the “Commerce Subaward Management” tab. The costs for the Tribal Clean Energy grant program, which will be implemented by Commerce, are included as part of the tab for that measure. Any operational costs (i.e. Personnel, Fringe, Travel, Supplies) being requested by subawardees are included under measure specific tabs in the Budget Detail.

A breakdown of all funding by Object Class Category is shown in the Budget Detail in the blue colored table (“BUDGET BY YEAR FOR ALL SUBAWARDS, TRIBAL CE GRANT and COMMERCE MGMT). The details of this measure specific approach to the budget is discussed below and is meant to show the distribution of funding across direct and indirect Object Classes.

For the purposes of filling out the SF 424A, a separate orange colored table (BUDGET BY YEAR FOR COMMERCE (LEAD)) has been created to show the Object Class Category for the Commerce budget as the lead agency for the grant. This budget includes both the “Tribal CE grant” and “Commerce Subaward Management” tabs. The “Commerce Subaward Management” tab includes the calculations for these subawards to local governments and Tribes that have been included under the “Other” category. The budget breakdown for each Object Class under this budget are as follows:

* Personnel: $2,903,384 (3.5%)
* Fringe: $1,074,252 (1.3%)
* Travel: $45,842 (0.1%)
* Equipment: $0 (0%);
* Supplies: $31,860 (0.6%);
* Other: $76,032,215 (92.8%).

Total direct spending is $80,587,554 (98.4%) and total indirect is $1,308,642 (1.6%). The majority of funding is being directly subawarded to local governments and Tribes for climate pollution reduction measures. The indirect funding covers Commerce indirect rate (32.9% of Personnel + Fringe).

Justification of Costs by Object Class Category (reference blue table in Budgetcalcs attachment): The following narrative lists justification of costs for each object class in the budget. Further details, including itemized costs and other justifications, can be found in “Budgetcalcs” attachment.

**Personnel and Fringe**:

Personnel accounts for 4.6% of the budget. Fringe accounts for 1.5% of the budget. Together, they make up 6.1% of the total budget.

Subaward Management: Commerce is requesting funding for 6.0 FTE of project positions to support implementation and management for each measure (i.e. subaward to local government or Tribe). The salaries for year 1 are calculated at the current state averages for the state fiscal year 2024 and include a 4% COLA adjustment in July 2024. Salaries in subsequent years are calculated assuming no COLA to stay aligned with current knowledge of Washington state trends. Fringe benefits include payroll taxes, Social Security and Medicaid, industrial insurance, health insurance, and retirement benefits. Commerce used a standard fringe benefit rate applied across employees of 37%. The total for the five-year grant period for Personnel/Fringe is $3,361,004.

Subawardees requesting Personnel/Fringe include:

* Tribal Fleet Electrification: Cowlitz Indian Tribe Public Works is requesting 1.0 FTE (0.5 FTE Project Manager and 0.5 FTE Project Staff) for the five years of the grant. The total Personnel/Fringe cost for this measure is $521,622.
* SCC Energy District: Seattle Central College is requesting 1.2 FTE (1.0 FTE Washington Department of Enterprise Services Project Manager and 0.2 FTE SCC Project Staff) for the five years of the grant. The total Personnel/Fringe cost for this measure is $315,721.
* WWU Energy District: Western Washington University is requesting 0.45 FTE (0.25 FTE Project Manager and 0.2 FTE WWU Project Coordinator) for the five years of the grant. The total Personnel/Fringe cost for this measure is $123,510.

For the Tribal Clean Energy Grant program Commerce is requesting 1.1 FTE for the five years of the grant. The total Personnel/Fringe cost for this measure is $616,632. Staff include includes:

* 0.5 FTE program manager (COM3) – lead for contract management and RFP coordination
* 0.5 FTE contract management support (COM 2)
* 0.1 FTE Tribal policy specialist (EMS2) – Tribal coordination and outreach for program

**Travel**:

Travel accounts for 0.1% of the total budget.

Subaward Management: Commerce is not requesting funding for travel as part of subaward management.

Subawardees requesting Travel include:

* SCC Energy District: Seattle Central College is requesting $8,005 in travel for the five years of the grant to support staff attending conferences and workshops to present on the EcoDistrict project.

For the Tribal Clean Energy Grant program Commerce is requesting $45,842 in travel to attend state meetings with Tribes and promote the Tribal program. This funding covers annual trips to most of the 29 Tribes in Washington (with some being bundled by region). Tribal coordination is contingent on in person events to build trust.

**Equipment**:

Equipment accounts for 36.0% of the total budget. Commerce staff will ensure compliance with all Buy America and other procurement requirements.

Subaward Management: Commerce is not requesting funding for equipment as part of subaward management.

Subawardees requesting Equipment include:

* Water transportation: Port of Port Angeles is requesting $2,000,000 to purchase one spud barge (@$1,000,000) and one inland barge (@$1,000,000). These are the main items being requested and support the transportation of freight through waterways. These barges can be purchased from domestic suppliers.
* Rail Infrastructure: Pend Oreille Valley Railroad is requesting a total of $11,700,000 in equipment to support locomotive conversions to lower emission engines, install a dry blast booth, and a new hydrogen fueling station.
* Vehicle-to-grid integration: City of Spokane and Avista Utilities are requesting $6,787,564 out of the $7,367,000 needed to purchase: (1) 87 light duty electric vehicles (EVs); (2) utility infrastructure (line extensions and transformers) to interconnect EVs to grid ($5,845/EV supported) and (3) EV supply equipment, including dedicated supply panels, circuits and chargers ($5,046/EV connected). Avista will provide non-reimbursed costs for ~50% of the utility infrastructure and EV charging equipment.
* Tribal fleet electrification: Cowlitz Indian Tribe Public Works is requesting $7,400,000 total for: (1) 40 EVs (10 a Year Avg. 1-Transit Van, 2-Trucks, 3-Mid Size, 4-Sedan); (2) 3 Solar turn-key carport systems (includes Materials, Labor, Electrical Components); and (3) 2 Solar microgrids for Tribal buildings (includes Solar, Batteries, Storage Building, Ballast, Inverters, Permitting, Design, Labor).
* Anaerobic digesters: Commerce will subaward funding for two different anaerobic digesters for two local projects. Pierce County will receive $600,000 to purchase an AD 185 (which can process 185 tons of food per year) and Tenino AgPark will receive $1,000,000 to purchase an AD 500 (which can process 500 tons of food per year)

For the Tribal Clean Energy Grant program Commerce is not requesting funding for equipment.

**Supplies**:

Supplies account for less than 0.1% of the total budget.

Subaward Management: Commerce is requesting a total of $27,180 for supplies to support staff, including $22,500 for standard workstations (desk, chair, computer, monitor and $800 for misc. equipment and supplies) and mobile phone for a total of a one-time costs of $4,500/FTE. Commerce is also requesting $4,680 for general office supplies (pen, paper, etc. for facilitation and outreach materials), with an initial upfront amount to support staff and diminishing amounts requested each year.

No subawardees are requesting funding for supplies.

For the Tribal Clean Energy Grant program Commerce is also requesting $4,680 for general office supplies (pen, paper, etc. for facilitation and outreach materials), with an initial upfront amount to support staff and diminishing amounts requested each year.

**Contractual**:

Contractual funding accounts for 22.4% of the total budget. Commerce staff will ensure compliance with all federal requirements (i.e. CFR 200, Davis Bacon).

Subaward Management: Commerce will use a total of $500,000 ($100,000/year) to contract with a third-party manager to provide reporting and implementation support for each team in the anaerobic digesters program.

Subawardees requesting Contractual funding include:

* Rail Infrastructure: Pend Oreille Valley Railroad is requesting a total of $507,200 for the following consultant services: (1) design of the repair shop; (2) construction of the repair shop; (3) construction administration; (4) energy conservation and civil engineering to meet LEED and other efficiency standards; (5) Hazmat and geothermal surveying; and (6) cultural resource studies.
* Vehicle-to-grid integration: City of Spokane and Avista Utilities are requesting $4,758,000 for the following services: (1) $1.458 million for vehicle-to-grid integration systems development (including software, communications/controls, hardware); (2) $2.625 million for vehicle-to-load systems development (including software, communications/controls, hardware); (3) $116, 700 per year for contracted labor for project management and administration; and (4) $90,000 for a public education and communication consultant to support to execute a paid communications plan to introduce the benefits of the demonstrations to the targeted audiences and sustain awareness.
* SCC Energy District: Seattle Central College is requesting $8,666,196 for contracts for the following services: (1) construction and expansion of the electrified heating system; (2) transformer upgrades; and (3) contract for measurement, verification and optimization of new system.
* WWU Energy District**:** Western Washington University is requesting $3,877,381 for contracts for retrofitting 8 buildings on campus. Each contract will include design and engineering, heat recovery coils, pumps and piping (where needed), electrical equipment, building controls, installation labor and contract management.

The Tribal Clean Energy Grant program is not requesting funding for contracts.

**Other**:

Other expenses account for 33.7% of the total budget. Commerce staff will ensure compliance with all federal requirements.

Subaward Management: Commerce is requesting $298,488 in funding for direct costs, including Seat of Government real estate services fee (since state facilities are exempt from paying local property taxes); Department of Personnel required charge; Repair and maintenance to office equipment; Space and Utilities to rent offices. Other direct cost for services from other agencies or services to provide communications, data processing for our outlook mailboxes, the state data center, software licenses and the personnel database.

Subawardees requesting Other funding include:

* Water transportation: Port of Port Angeles is requesting $7,000,000 ($1,400,000/yr.) to run an incentive program for barge operators. This program is the first of its kind and will ensure stable pricing and regular routes are available for new barging activities.
* Vehicle-to-grid integration: City of Spokane is requesting $2,042,250 for operations and maintenance costs for both the pilot programs.
* SCC Energy District: Seattle Central College is requesting $1,543,599 for sales tax (10.25%) and charges to pay utility charges related to upsizing electrical service for expanded building load.
* WWU Energy District**:** Western Washington University is requesting $674,275 for project hires, taxes (9%) and an owner contingency of 5% to cover potential cost impacts to supply chains and unforeseen costs from existing building conditions.
* Anaerobic digesters: Commerce will subaward a total of $956,000 to two projects for annual operations expenditures, installation, shipping, permitting and 20% contingency costs for unexpected costs. Unexpected costs include soft costs encompassing labor, planning, logistics, and inefficiencies in regulatory processes, all of which will be documented to help develop methods and processes to reduce costs and lead to project acceleration in the future. Pierce County and Tenino AgPark will earmarked $478,000 each.

The Tribal Clean Energy Grant program is requesting $15,000,000 in funding for competitive awards to Tribes in Washington for this grant program. Commerce is also asking for $65,667 for direct FTE costs for seat of Government real estate services fee (since state facilities are exempt from paying local property taxes); Department of Personnel required charge; Repair and maintenance to office equipment; Space and Utilities to rent offices. Other direct cost for services from other agencies or services to provide communications, data processing for our outlook mailboxes, the state data center, software licenses and the personnel database.

**Indirect costs**:

Indirect costs account for 1.8% of total budget.

Subaward Management: Commerce is requesting $1,105,770 to cover federal indirect, which has been negotiated as 32.9% of Personnel + Fringe.

Subawardees requesting Indirect funding include:

* WWU Energy District**:** Western Washington University is requesting $187,007 University overhead and accounting fees (4% of contracted amount).

The Tribal Clean Energy Grant program is requesting $202,872 to cover federal indirect, which has been negotiated as 32.9% of Personnel + Fringe.

**Reasonableness of Cost**:

Itemized costs for each measure are included in “Budgetcalc” attachment. Notes on specific line items are also included in column K on each measure’s corresponding spreadsheet. For each measure identified the following reasonableness of costs were assumed:

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| **Commerce Subaward support:** |
| **VMT reduction through water transportation** |
| **Inland Barge**: This item increases regional capacity to barge freight instead of relying on long-haul trucking. Despite growing demand for water transportation, capacity is limited to one inland barge that travels between the Port and other locations in the Strait of Juan de Fuca and Puget Sound. This means that when the Port ships out a barge, it cannot load or unload freight for local businesses until the barge returns from unloading and loading at the other end of the route, creating inefficiencies and idle time that could be utilized if the route had access to another barge. Adding another inland barge will enable more freight to be shipped via water by increasing cargo capacity and allowing simultaneous unloading/loading at both the Port and another facility.  **Spud Barge:** This item removes tidal limitations on barge loading and unloading activities at the Port. Currently, these tidal limitations make it difficult to load and unload barges on a regular, dependable schedule because tides shift throughout the month and year. Removing this limitation will allow regular barge service which is an integral piece of encouraging modal shift from long-haul freight trucking to barging, which is a lower-carbon transport method.  **Incentive Program:** The program will support new and expanded barge operators to run barges regularly between the Port and its partner locations. The program will accomplish this by providing temporary financial support to cover cost deltas for operations that do not yet meet profit goals while building out customer bases. In the initial years of business, barge operators – who charge freight manufacturers on a per-ton basis – may need to ship barges at less than 100% capacity to maintain a regular schedule of service and attract new customers. Without a program, these operators would lose money and may not reach break-even or profit points quickly enough to remain in business long-term.  **In total, the barges and incentive program contribute to the reduction of 3,626 GHG emission reductions between 2025-2030 and a cost effectiveness of $2,482/MTCO2e.** |
| **Enable decarbonization of rail infrastructure** |
| **Repair Shop:** The design and construction of a new 40,000 +/- sq. ft. repair and maintenance shop for locomotives, large industrial vehicles, and smaller commercial vehicles will include upgrading the existing blast booth from wet to dry blasting process and implementation of a hydrogen fueling station for locomotives. This ensures project alignment with the Port’s vision for providing Tier 3 and Tier 4 locomotive upgrades and service work with an emphasis on public safety, future-proofing assets, and staying abreast of evolving hydrogen technologies. The Port is also taking proactive measures to future-proof their assets by accommodating the evolving diesel, hydrogen, and other battery/EV technology as an acknowledgement of the project’s significance in enhancing public safety and reducing GHG emissions for a renewable, clean-energy, net-zero economy, and freight sector.  **Contractual**: The Port intends to utilize CPRG funds to collaborate with an architecture and engineering firm and building contractor for the overall planning, design, and construction of this new four-bay facility. This strategic expansion strategy also addresses the Port’s need for additional space to accommodate the increasing need for locomotive conversion services that also recognizes the limited availability of such services nationally, which could lead to increased scale, replicability, and adoption by other repair service providers globally. The environmental considerations include cultural resource studies and the integration of sustainable development and design practices that emphasize minimal environmental impact, advance energy efficiencies, reduce water consumption, utilize practical landscaping, and includes other “green” technologies where and as appropriate. The certification goals for the building include aiming to meet nationally recognized standards for energy efficiency as well as pursuing possible LEED certification which showcases the Port’s commitment to environmentally conscious business practices  **In total, the shop and contracted services contribute to the reduction of 3,858 GHG emission reductions between 2025-2030 and a cost effectiveness of $3,164/MTCO2e. In the long term (2025-2050) this project will realize 177,456 MTCO2e.** |
| **Vehicle-to-grid integration for resilience** |
| **Purchase of EV’s:** The City will purchase the needed EVs utilizing State negotiated contracts were possible to ensure a fair purchase price of the light duty electric vehicles.  **Smart Charging Demonstration:** A request for proposals will be sought to select a software provider to implement the “smart” charging software needed. This proposal process will include asking the potential provider how they will address topics focused on keeping costs reasonable. Keeping costs reasonable will also be a part of the scoring and ultimate selection process. Once a software provider has been selected, Avista will utilize its state-of-the-art, virtual grid laboratory facilities to validate, configure and optimize the software as well as levelized charging schedules and controls to ensure any issues are identified before the demonstration begins. Up front testing will reduce costly changes in the field. Charging station equipment will be purchased in large enough quantities to ensure bulk saving where possible.  **Mobile Power Solution Demonstration:** This demonstration will also utilize Avista’s lab testing procedures as much as practical as a cost control measure. There will a significant amount of learning during this demonstration and the best way to ensure costs remain reasonable will be to test the light duty EV first and confirm viability before moving on to utilizing a transit EV bus.  **Public Communication Plan:** An open selection process will be used to hire the most qualified communications firm. The scoring and selection for this work will also be based on cost control measures to ensure both effective and efficient forms of communication are utilized.  **In total, the EVs and demonstrations will contribute to the reduction of 1016 GHG emission reductions between 2025-2030 and a cost effectiveness of $13,374/MTCO2e. Further unquantified benefits from grid resilience will be analyzed and quantified during the course of demonstrations.** |
| **Tribal fleet electrification** |
| **Solar arrays**: The combined 230kW of solar arrays will provide at least 300,000 kW of electricity to the Cowlitz Tribe. The economic benefits of this renewable energy will be over $24,000 annually. Over the expected life span of the solar panels, the economic value to the Tribe will be over $640,000.  The energy created from the solar arrays will generate a surplus of approximately 130,000 kilowatt hours per year, enough energy to displace over 18,000 gallons of gasoline and/or diesel fuel. This energy alone is sufficient to reduce carbon emissions by 140 metric tons per year.  **Electric vehicles**: The ambition of the CIT, however, is a transition to an electrified fleet. Their fleet of 75 vehicles use approximately 62,000 gallons of fossil fuels per year with estimated emissions of 550 metric tons. Co-benefits of replacing 40 of these vehicles include reducing fossil fuel emissions from transit operations in this overburdened community, and providing cleaner air for the local community.  **In total, the EVs and solar arrays will contribute to the reduction of 1,950 GHG emission reductions between 2025-2030 and a cost effectiveness of $4,062/MTCO2e. Further unquantified benefits from grid resilience will be realized as a result of the solar and battery energy storage as well.** |
| **Tribal Clean Energy grant program** |
| This program aims to award $15 million in grants. Commerce intends to award as many eligible contracts as funding allows. There is no minimum award amount, and the maximum award amount for a single award is $2,750,000. Applications exceeding the maximum allowable award will be considered non-responsive and will not be evaluated. Grants are not to exceed 100 percent of the cost of the project, taking into account any federal tax credits or other grants or incentives that the project is benefiting from. No match is required for this program; however, projects that document match or leveraged funding from other sources will be prioritized in the event of a scoring tie between another  project. Priority will also be given to projects with greater GHG emission reductions and cost effectiveness. Contracts will be performance based, with final payment made upon successful completion of the scope of work.  **In total, projects could contribute to the reduction of 13,930 GHG emission reductions between 2025-2030 and a cost effectiveness of $1144/MTCO2e. Further unquantified benefits from grid resilience may be realized as a result of projects as well.** |
| **District energy systems (SCC)** |
| The State of Washington’s Department of Enterprise Services (DES) does a competitive selection of Energy Services Companies (ESCOs) once every biennium, which includes negotiated fees with the ESCOs. McKinstry was selected from this competitively selected roster. DES provided a project manager to oversee the development, pricing, construction, and M&V to ensure that all aspects of the Master Energy Services Agreement (MESA) and associated general conditions are followed. The MESA would allow McKinstry to negotiate the equipment and installation, but DES and SCC requested that McKinstry solicit multiple bids from each of the main installation trades and for each of the major pieces of equipment. SCC also requested that unbundling of equipment (ESCO to direct purchase) and flat-tiering of subcontractors (i.e. the insulator working for the ESCO rather than as a subcontract to the mechanical installer.) SCC worked with McKinstry to also follow an iterative process over multiple years to optimize the design and cost.  **In total, the fully funded EcoDistrcit could contribute to the reduction of 9,420 GHG emission reductions between 2025-2030 and a cost effectiveness of $1,062/MTCO2e. The CPRG portion alone will account for 2916 MTCO2e by 2030 and 15,878 MTCO2e by 2050.** |
| **District energy systems (WWU)** |
| Western’s budget plan has been vetted by TRANE technologies who performed the original ASHRAE Level II study in 2022. TRANE is a WA State Department of Enterprise Services approved vendor for Energy Project Management Services which include analysis, engineering, life-cycle costing, and construction. A realistic approach to retrofitting existing buildings requires a company who works in them day in and out.  **In total, projects could contribute to the reduction of 5,170 GHG emission reductions between 2025-2030 and a cost effectiveness of $940/MTCO2e.** |
| **Anaerobic digesters** |
| Local governments can implement this measure at a variety of scales. A small AD system can process 25-tons per year and reduce emissions by about 0.67 MTCO2e per ton of food waste, meaning that one project could avoid 17 MTCO2e per year. A larger system can process 500- tons per year and reduce emissions by about 0.67 MTCO2e per ton of food waste, meaning that one larger scale project could avoid 335 MTCO2e per year.  **In total, projects could contribute to the reduction of 2,190 GHG emission reductions between 2025-2030 and a cost effectiveness of $1,395/MTCO2e.** |

1. https://deptofcommerce.app.box.com/folder/250208029429 [↑](#footnote-ref-1)