



City of Longview

1525 Broadway
Longview, WA 98632
www.ci.longview.wa.us

City Council

*Mayor Don Jensen
Council Member Ken Botero
Council Member Chet Makinster
Council Member Steve Moon
Council Member Scott Vydra
Mayor Pro Tem Michael Wallin
Council Member MaryAlice Wallis*

Thursday, July 25, 2019

6:00 PM

2nd Floor, City Hall

NOTICE IS HEREBY GIVEN, in accordance with RCW Chapter 42.30, that the City Council of the City of Longview, Washington, will conduct a special meeting in the Longview City Hall Training Room, 1525 Broadway, Longview, on Thursday, July 25th at 6:00 p.m. The topics of discussion follow. Final disposition shall be taken on no other matter.

The City Hall is accessible for persons with disabilities. Special equipment to assist the hearing impaired is also available. Please contact the City Executive Offices at 360.442.5004 48 hours in advance if you require special accommodations to attend the meeting.

1. **CALL TO ORDER**
2. **WORKSHOP**
19-000277 ELECTRIC VEHICLE CHARGING STATIONS
3. **ADJOURNMENT**



City of Longview

Agenda Summary

ELECTRIC VEHICLE CHARGING STATIONS

COUNCIL STRATEGIC INITIATIVE ADDRESSED:

Strengthen Economic Conditions and Create New Opportunities, Provide Sustainable Environmental Infrastructure, Address Quality of Life Issues, and Improve Transportation Systems.

CITY ATTORNEY REVIEW: N/A

SUMMARY STATEMENT:

On March 28, 2019 City Council directing the City Manager to direct his staff to explore, evaluate and report back to Council a plan of action for Council adoption an EV charging plan, to make appropriation for and implement the installation of at least 5 electric vehicle charging stations at various sites in Longview by December 31st 2019, including meeting with and working with stakeholders and outside partners in development of such plans.

Staff will present their findings to Council at this workshop.

RECOMMENDED ACTION:

Seek further direction and path forward from Council

Attachments:

1. EV Charging Proposal



CITY OF LONGVIEW PUBLIC EV CHARGING

JULY 25TH, 2019



OBJECTIVES

- Install public use EV charging stations to promote local commerce
- Provide charging for EV implementation in the City fleet

CHARGER TECHNOLOGY

Level 1 Charging

Range per hour of charge	5 miles
Electric and power spec	120 Volt, 12-16 Amp circuit
Maximum Charging Capacity (kW)	1.44 kW
Charger connector	 Port J1772
Charger cost	None
Application	Suitable for home overnight charging, not suitable for on-the-go or commercial charging

Level 2 Charging

Range per hour of charge	25 – 70 miles
Electric and power spec	208 – 240 Volt, 30 - 80 Amp circuit
Maximum Charging Capacity (kW)	7.2 – 19.2 kW
Charger connector	 Port J1772
Charger cost	Approx. \$1,000 – \$6,000
Application	Common in public or workplaces charging where people will stay for an hour or more

Level 3 Fast Charging

Range per hour of charge	175 – 525 miles
Electric and power spec	208 – 240 Volt, 180 Amp circuit (22kW) 480 Volt 3-phase 80 – 240 Amp circuit (50kW – 150kW)
Maximum Charging Capacity (kW)	22 – 50 kW for DCFC 50 – 150 kW for High Power Stations
Charger connector	  <u>CHAdeMO</u> SAE Combo CCS
Charger cost	Approx. \$25,000 – \$100,000
Application	Perfect for short-time parking places, retail stores, freeway corridors, roadways

CHARGER TECHNOLOGY

- Super Chargers/Ultra High Power DC Fast Chargers
 - Emerging Technology 350KW+
 - Potential for a full charge in just a few minutes

CITY OF SEATTLE COSTS

- Average level II cost including installation is \$16,500
- Single fast charger installed at a cost of \$80,000

2019 EV RANGES NEAR 100 MILES OR MORE

- Fiat 500E 84 miles
- Honda Clarity 89 miles
- KIA Soul 111 miles
- Ford Focus E 115 miles
- Nissan Leaf 150/226 miles
- Chevy Bolt 238 miles
- Mercedes EQC 280 miles
- Tesla S 270/315/370 miles

WASHINGTON AND LONGVIEW EV DATA

- Washington has 46,000 Registered EV's out of 2.9 million vehicles
- Increase of 12,000 in the past year
- Longview area has 200 EV's with 48.8% growth each year (25 mile radius)
- Projections show 1,000 EV's in Longview area by 2025
- Some recommendations are as high as 5:1 ratio of EV's to Electric Vehicle Supply Equipment (EVSE)
- \$124 fine for parking in marked EV charging stations, RCW 46.08.185

EXISTING PUBLIC USE STATIONS IN LONGVIEW

- Cowlitz PUD Main Office, Commerce – Level II
 - Blink Network, Customers pay Blink and CPUD receives a percentage of Net Revenue
 - Estimated to be in use less than 10% of the time



EXISTING PUBLIC USE STATIONS IN LONGVIEW

- LCC Parking Lot H, Maple Street – Level II
 - Chargepoint Network
 - No charge to the public, possibly initiating a small fee in the future
 - Frequently used, little tracking of users – students?, local residents?, commuters?



CAR DEALERSHIP CHARGING STATIONS

- Bud Clary – customers only
- Columbia Ford – Shop use only
- McCord Dodge – Open to public with Chrysler products
 - Very little public use per Service Department

REGIONAL CHARGING STATIONS

- Kelso – 4 @ 3 Rivers Mall, Electrify America, new not on maps
- Castle Rock – 1
- Chehalis - 8
- Woodland – 2
- Ridgefield – 5



STAKEHOLDERS

- EV Drivers – Identify?
- Local Businesses
- Downtown advisory group
- Ron Knori – former owner of Eco Cab, EV owner
- Cowlitz PUD
- Cowlitz Wahkiakum COG

RECOMMENDATIONS FROM DOWNTOWN ADVISORY COMMITTEE

- Do not use street parking locations
- Parking lots on 12th & 14th are preferred locations
- Lower use lots would be preferred unless high charger use is anticipated
- Consider loss of revenue from parking permits and high demand for parking
- Include EV stations at City Hall

Downtown Parking Lots



COWLITZ WAHKIAKUM COG

- In early stages of a charging station study
- Study will conclude in late summer/fall 2019
- Level II chargers proving sufficient in Pacific County

CHARGEPOINT PARTNERSHIP

- Chargepoint operates 78% of all EV Chargers
- 82% of EV drivers are members of the Chargepoint network
- CPASS Program
 - Level II dual cord charger provided
 - 80 Amp Charger, Amperage sharing options, bridges gap between Level II & III
 - \$2400/year, \$200/month
 - City pays PUD for power used
 - 10% of charging fees to Chargepoint, 90% to City
 - Chargepoint does all maintenance including vandalism, damage and updating
 - Free charging options for Fleet or public
 - City is responsible for infrastructure to charger, installation is included

BLINK PARTNERSHIP

- Blink Owned Charger option
- Blink sets charging rates with no input from City
- No fee model for free charging of City owned vehicles
- 80 Amp vs 32 Amp capacity of some competitors, bridges gap between Level II & III
- 7 Year Term
- Setting, Maintenance and Customer Service provided, vandalism within limits....
- City responsible for infrastructure
- Blink pays for electricity
- 5% of net revenue returned to City
 - After \$20 per-month per-charger network fees and 8% transaction fees are removed

GREENLOTS PARTNERSHIP

- City owned chargers
- GreenLots provides installation, software, maintenance, billing and customer app based on agreement
- Customizable fee structure
- GreenLots retains 7-10% of venue for processing depending on fee structure
- Supply OCPP (Open Charge Point Protocol) chargers from various manufacturers
- City is responsible for infrastructure and electricity used
- Level II chargers \$2,500 - \$4,500
- Level III DC Fast chargers \$30,000

SEMACONNECT CHARGERS

- City owned chargers
- City control of fee structure, \$2/hour recommended upper limit
- Network Chargers \$20 per-month per-station network fee (\$2,400 Annual)
- 94/6 Split of revenue, 94% to City, covers software and cell fees
- PlugShare mapping
- No coverage for vandalism or damage
- City is responsible for infrastructure
- Pricing based on service agreement
 - 1 yr \$2,990 Single / \$5,980 Dual
 - 3 yr \$4,030 Single / \$8,060 Dual
 - 5 yr \$4,950 Single / \$9,900 Dual

OPCONNECT CHARGERS

- HCS-40 Series Charger
- City Owned
- Network, Billing and Flexible charging options
- 32 Amp charging
- \$3,507 Dual Head Pedestal
- Installation and infrastructure not included
- \$345 annual maintenance and network services charges per port
- Options to have Opconnect perform billing for and additional fee

WEBASTO/EV SOLUTIONS

- Turbo DX Level II Charger
- City owned, no maintenance or service contracts available
- Free Charging only
- Non-network, no tracking of usage or billing capabilities
- 32 Amp Capacity
- \$510 Wall Mount, \$935 Single Pedestal, \$1,450 Dual Pedestal
- Installation and infrastructure not included

CLIPPER CREEK CHARGER

- HCS-40R Charger
- City Owned, No Maintenance or Service Contracts available
- Free Charging Only
- Non-network, no tracking of usage or billing capabilities
- 32 Amp Capacity
- \$665 Wall Mount, \$719 Pedestal Mount, \$1,544 Dual Pedestal
- Installation and infrastructure not included

INFRASTRUCTURE COSTS DOWNTOWN LOTS

- PUD estimate for locating chargers close to power near the alley
- Level II ~\$2,500
 - Utilizing existing or upsized transformer
- Level III \$10,000 – \$27,000
 - New 3-Phase transformer
- Infrastructure estimates \$5,000 - \$50,000
- Dependent on distance, demo and surface restoration

CHARGING MODELS

- Level II chargers promote longer stays
- Drivers on a tighter time schedule seek out Level III charging
- Free charging tends to promote cars being left on the charger after charging is complete, this ties up the charger and prevents others from using it
- Many fee structures are based on charging time not energy consumed
 - Rates can be Increased after a couple of hours to deter over staying
 - Idle fees can be instituted after charging is complete

CLIMATE COLLABORATIVE

- Division of Climate Mayors
- Contracts and discounts with 5 vendors through Sourcewell contract
 - Chargepoint
 - Green Lots
 - Wabasto
 - Seimens
 - Lilypad

CLIMATE COLLABORATIVE

- Upkeep can be minimal to quite a bit with vandalism and damage
- Place chargers near power, it's expensive to bring power to chargers
- Multiple chargers in close proximity can be beneficial as people will wait for a space if several are present, they tend to leave if only 1 or 2 are present and all are in use as the anticipated wait is longer
- Can be expensive to charge a fee for use without a partner
 - Networking fees, wifi/cell

FUNDING SOURCES

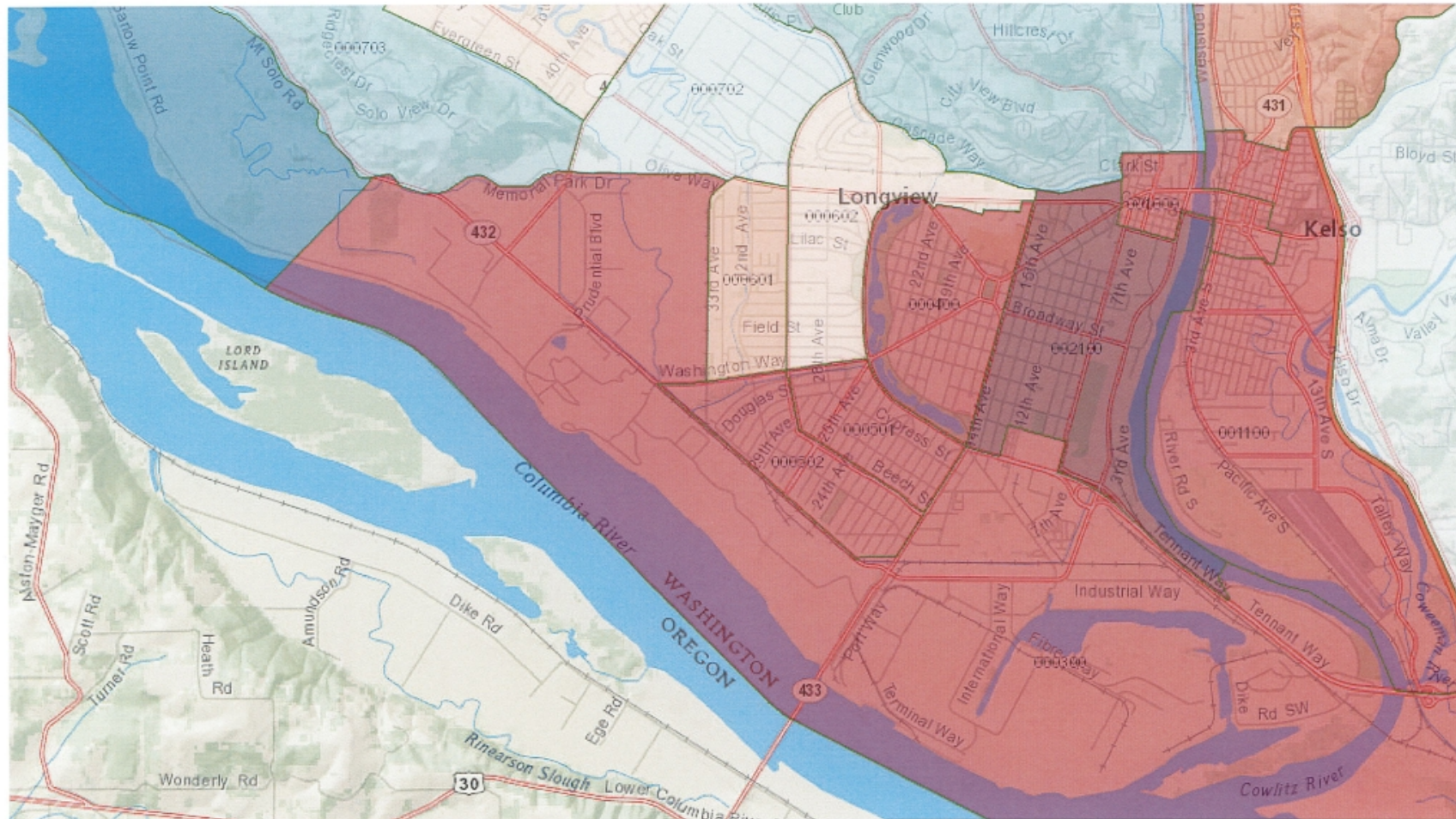
- WA DES – Funding for local governments, must provide public benefit, prioritizes multi-use (Fleet, Public, Employees) and Underserved Communities **Currently under revision with no published opening date.**
- WA DOT – Corridor Charging, multiple chargers over distance, not individual locations, focused on Interstate exits, possible funding through Energy NW Consortium, **next funding round August 2019**
- WA Dept of Ecology – Prioritizes high occupancy government facilities with over 200 people at a single location and Corridor Charging
- Charging Network Partnerships



Selection: Diesel Pollution and Disproportionate Impact
Diesel Pollution Burden, Priority Populations

Date: 06/18/2019 at 1:17 PM

Legend: (High) 10 9 8 7 6 5 4 3 2 1 **(Low)**



1mi

CHARGER LOCATIONS

- Downtown Parking Lots – 2 locations
- City Hall – Fleet and public use
- Mint Valley Golf
- Transit Center – Pre-wired for 2 chargers, Transit Fleet and Public?
- Partnerships with business/land owners would need to be worked out for any locations that are not on City property.
- Blink has a partnership with Kroger, checking on LV Fred Meyer.

RECOMMENDATION

- Enter into an agreement with a charging partner to provide low fee charging
- Partner entity would be responsible for billing, maintenance and repairs
- Partner with an entity that allows free/reduced charging for City fleet
- Utilize Level II chargers due to lower cost and longer charging duration