

# WASHINGTON STATE DEPARTMENT OF COMMERCE

## Electricity and Biofuels for Local Government Fleets: “To the extent practicable...”

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Department of Commerce  
Innovation is in our nature.

# Alternative Fuel & Vehicle Policy Context

*Since 1989...*

- **16 Legislative Bills, 10 Chapters of Code**
- **Six Executive Orders, Three Governor's Directives**
- **Pacific Coast Action Plan on Climate & Energy**

*Key results...*

- **State Motor Pool 50% Hybrids** (most of any state)
- **B20 Biodiesel Requirement** (highest of any state)
- **Leader in Electrification** (West Coast Green Highway)

*2007 Cleaner Energy Act (HB 1303)*

- **“Extent Practicable” Rules** (agencies & local governments)



# Agency Rule Development

Define “practicability” and how agencies will be evaluated in efforts to operate publicly owned vessels, vehicles and construction equipment from electricity or biofuel, “to the extent practicable:”

- **40% by June 1, 2013**
- **100% by June 1, 2015**

Electrical charging in state’s fleet parking and maintenance facilities by December 31, 2015 “to the extent practicable.”

*RCW 43.19.648*



# Local Government Rule Development

Local government subdivisions to meet 100% of fuel use by **June 1, 2018**, “to the extent practicable:”

- Separate rulemaking by **June 1, 2015**
- Transit agencies exempt if using CNG
- SB 5099 clarified local government requirements
  - ... Advisory committee to include representatives of each subdivision (e.g. cities, counties), plus electrical and/or gas utility
  - ... Exemptions: engine retrofits that void warranties, replacement before end of useful life, authority to exempt emergency response vehicles
  - ... Highest level of biodiesel warranty when purchasing diesel vehicles



# Key Considerations

*Criteria and thresholds...*

- **Functional Differences:** Equipment and fuels
- **Duty Cycles:** Timelines and lifecycle costs
- **Fleet Size:** Volume of fuel, number of vehicles
- **Geographic Availability:** Infrastructure, seasonality
- **Program Implementation:** Administrative cost, integration
- **Phased Approach:** Different fuel applications or quantities



# Agency Rulemaking Process

- **Work Group:** Commerce, WSU Energy Program, WSDOT, Ecology, Agriculture and Enterprise Services
- **Definitions**
- **Existing State and Federal Policies and Programs**
- **Data Gathering & Tracking**
- **Motor Pool Consolidation**



# Key Definitions

- **Biofuels:** Biodiesel, ethanol/ethanol blends, and CNG/LNG from biogas (biomethane)
- **Other Options:** CNG, LNG and propane possible if biofuels and electrification “not reasonably available”
- **Exemptions:** Aircraft, stationary generating equipment
- **Publicly Owned:** Not rentals or leases
- **State Agency:** Agencies and institutions of higher education covered by Ecology’s GHG requirements (~140)



## 2011 State Vehicle GHG Data (>10,000 gallons gas and diesel)

Agency	Total Gas & Diesel (gal)	Gas (gal)	E100 (gal)	Diesel (gal)	B100 (gal)	Propane (gge)	Power (kWh)	# PHEVs	# EVs	Total # Vehicles	VMT	Total Fuel (gal)	Fleet GHG (MTCO <sub>2</sub> e)
WSDOT	20,511,882	1,298,377	126,845	19,213,505	654,516	85				3,716	14,118,780	21,301,583	210,547
State Patrol	8,405,233	8,380,084	818,691	25,149	2,490					1,605	26,779,643	2,074,338	17,592
DNR	703,301	526,316	51,418	176,985	16,358			30		1,250	9,743,328	812,927	7,157
DFW	611,407	515,716	50,383	95,691	4,523					1,157	9,436,604	666,313	5,878
DSHS	573,304	408,957	39,953	164,347	24,558					1,328	8,994,730	637,815	5,703
Corrections	550,280	453,998	44,353	96,282	10,328							604,962	4,989
WSU Pullman	300,009	232,632	22,727	67,377	1,375					1,349		324,111	3,198
UW Seattle	258,603	191,652	18,723	66,951	761					672	3,458,538	278,087	2,197
Parks & Rec	243,659	166,077	16,225	77,582	1,435		4,257		132	1,128	3,420,938	261,319	2,449
L&I	219,660	219,660	21,460							483	5,335,233	241,120	2,091
Ecology	169,786	159,640	15,596	10,146	207					422	3,245,529	185,589	1,648
WSDA	134,028	117,772	11,506	16,256	1,991					295	2,495,670	147,525	1,296
Liquor Control	110,085	110,085	10,775							192	3,354,673	120,839	1,032
EWU	57,337	51,014	4,984	6,323	129					183		62,540	498
DES	56,420	56,303	5,501	117	17					440		61,938	621
WWU	52,797	41,724	4,076	11,073	226							57,099	523

*Top Tier*<sup>1</sup> 98.6% 91.8% 91.3% 98.3%

DOL	40,933	38,333	3,745	2,600	53					77	1,096,331	44,730	390
Military Dept	37,855	34,451	3,366	3,404	69							41,290	339
Spokane CC	34,411	34,411	3,362							125	304,524	41,339	377
TESC	33,966	27,793		6,173								31,052	339
Lottery Commission	29,202	29,183	2,851	19						50	874,129	32,053	274
Employment Security	29,092	29,092	2,842							133	856,813	31,934	119
Gambling Commission	28,693	28,693	2,803							87	819,438	31,496	281
DOR	13,578	13,578	1,327							28	310,921	14,905	129
Seattle CC	12,639	4,914	480	7,725	158	885				35	81,950	14,162	138
UTC	12,423	12,423	1,214							23	331,399	13,637	117
Big Bend CC	12,335	6,120	598	6,215	76	102				78		57,850 <sup>2</sup>	519
Insurance Commissioner	10,390	6,284	614	4,106	613					8	264,868	11,617	100
Veterans' Affairs	10,096	7,652	748	2,444	50					57	296,439	10,894	114

*Both Tiers* 99.5% 96.4% 96.6% 99.5%

**TOTAL ALL AGENCIES 33,440,680 13,368,893 1,303,376 20,071,787 720,058 1,289 17,361 30 132 15,486 98,968,733 28,404,530 272,044**

<sup>1</sup> Top tier agencies and universities consuming >50,000 gallons of gas and diesel in non-exempt vehicles, as percentage of all agencies reporting

<sup>2</sup> Includes substantial consumption of aircraft fuel, which under draft rule is exempt from requirements



# Technical Assistance

- **Quarterly Meetings**
- **Ongoing Support** (Commerce, WSU Energy Program, Agriculture and Western Washington Clean Cities)
- **Local Governments & Trade Associations**
- **Integrated Reporting**

*WAC 194-28*



# Compliance: Electrification

- **Light-Duty Vehicles:** Sedans, station wagons, SUVs, pickups and vans up to 8,500 pounds
- **Medium-Duty Vehicles:** Sedans, station wagons, SUVs and vans from 8,500 to 10,000 pounds
- **Practicable:** Due for replacement, doesn't require routine charging in the field, within 5% lifecycle cost of HEV
- **Charging Infrastructure:** ~300 publicly-owned Level Two chargers (240v AC), 14 Fast Chargers (480v DC)



# Compliance: Biofuels & Alternate Fuels

- **Biodiesel:** B20 on annualized basis through WSDOT and retail locations
- **Ethanol:** Already E10, use E85 for “flex-fuel” vehicles when available and 20% less than expensive
- **Biomethane:** Emerging opportunity
- **CNG, LNG and Propane:** Conversation if biofuels and electrification “not reasonably available”



# Local Government Rulemaking

- **Timeline:** Begin Fall 2014, due June 2015
- **Work Group:** WSAC, AWC, PFMA, WSTA, WPPA, utilities, others
- **First Step:** Define “Local Government Subdivision”
- **Ongoing Coordination & Technical Assistance**
- **Existing State and Federal Policies and Programs**
- **Data Gathering & Tracking**
- **Threshold Determination**
- **Compliance Expectations**
- **Reporting**

