

# Transforming Transportation and Our Regional Opportunity



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# Western Inland Energy Corridor

- world-class conventional and unconventional **fossil energy reserves**
- significant **renewable resources**
- energy **infrastructure** offering opportunities for integration
- people and R&D institutions



# Selected World Class Energy Corridor Resources

## Alberta Oil Sands

- 174 Billion Barrels (proven)
- Bitumen production = >1 million barrels/day

## Coal basins

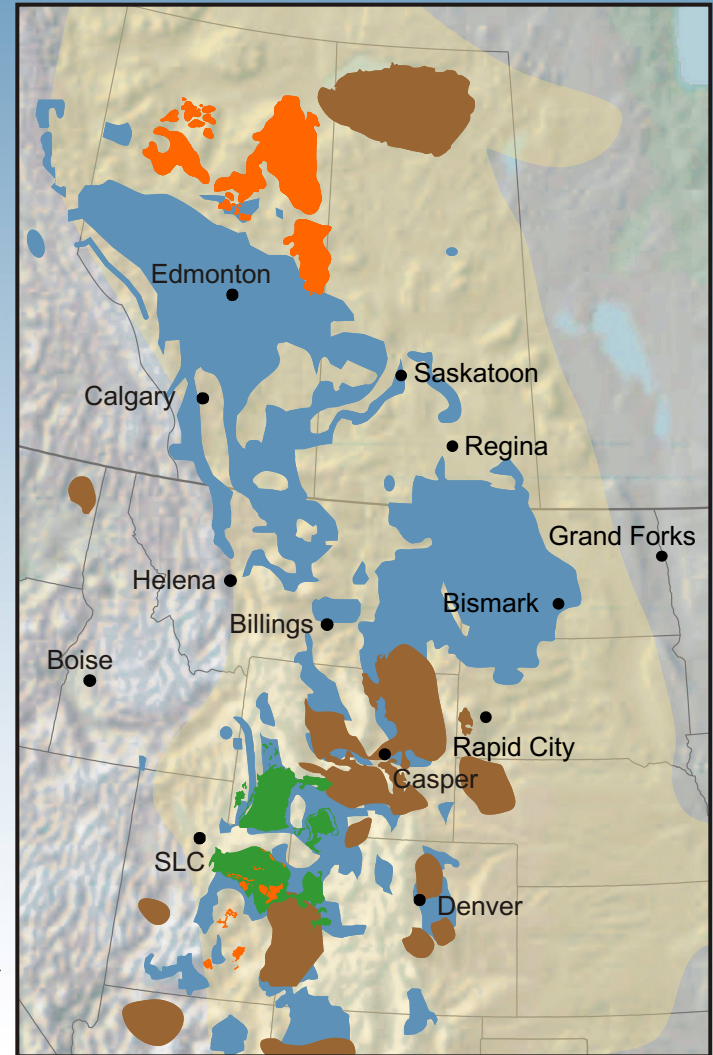
- The assessed coal in the Northern Rockies and Great Plains represents a total of about 660,000 million short tons

## Oil shale

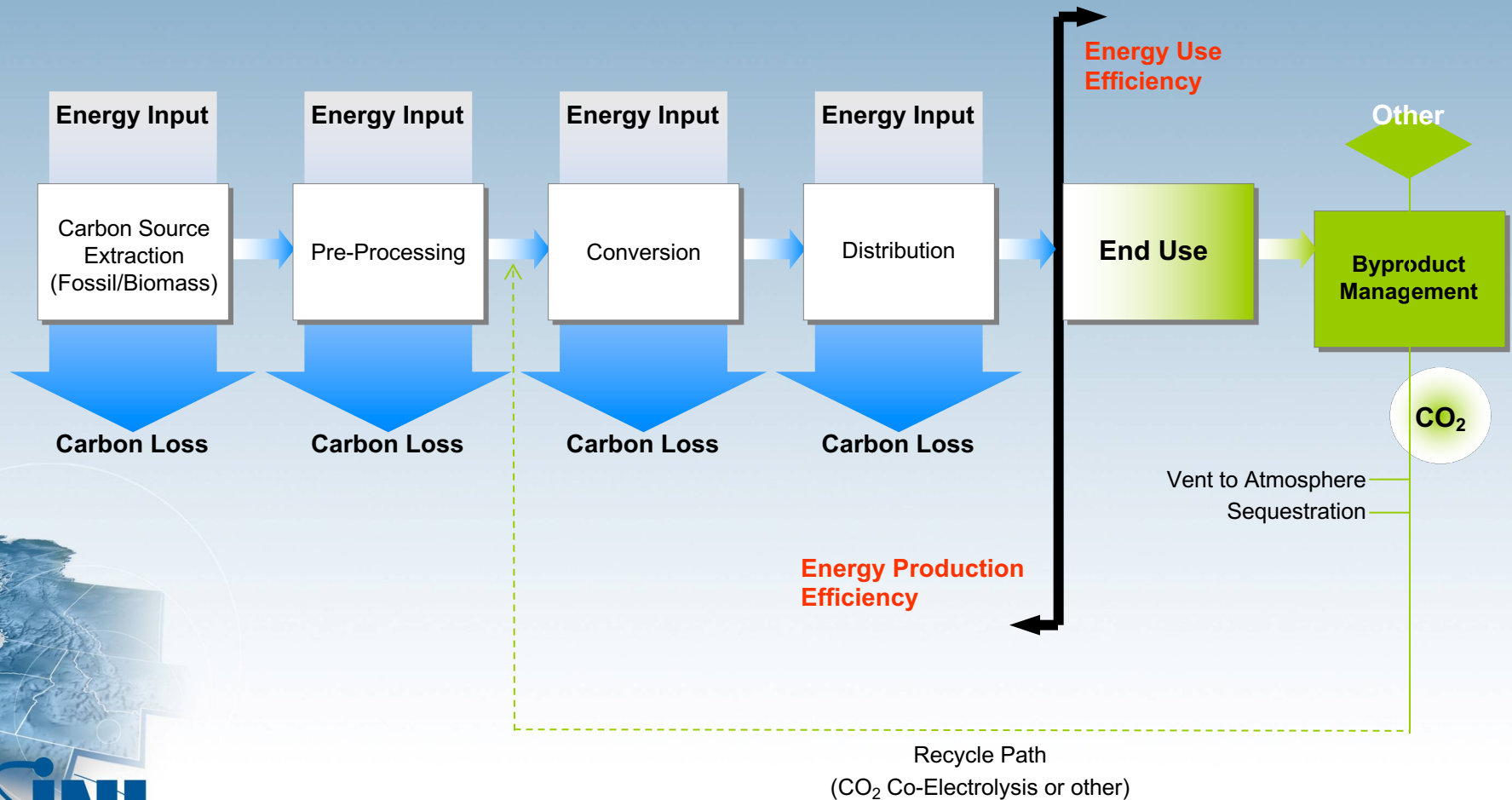
- May contain in place the equivalent of 2 trillion barrels of oil
- Sustained production estimated at 2.5 million barrels per day

## Saskatchewan uranium

- World's richest concentration
- 25-30% of world production



# Carbon-cycle Management





# U.S. Department of Energy and PHEVs

- The Advanced Vehicle Testing Activity (AVTA) conducts vehicle testing to support its goal of reducing the nation's dependency on foreign oil including the testing and demonstration of PHEVs
- Currently 140 vehicles – 160 vehicles by end of year. INL will monitor performance data in >75% of these vehicles
- Key Findings, to date:
  - Vehicles must be charged to maximize mpg
  - Aggressive driving significantly reduces mpg
  - PHEVs will get 100+ mpg for first ~40 miles of driving when charged and driven correctly
- Future Plans
  - Continued testing of conversion vehicles in preparation for testing OEM PHEVs
  - Initiating other PHEV testing such as expanded battery and vehicle to grid testing

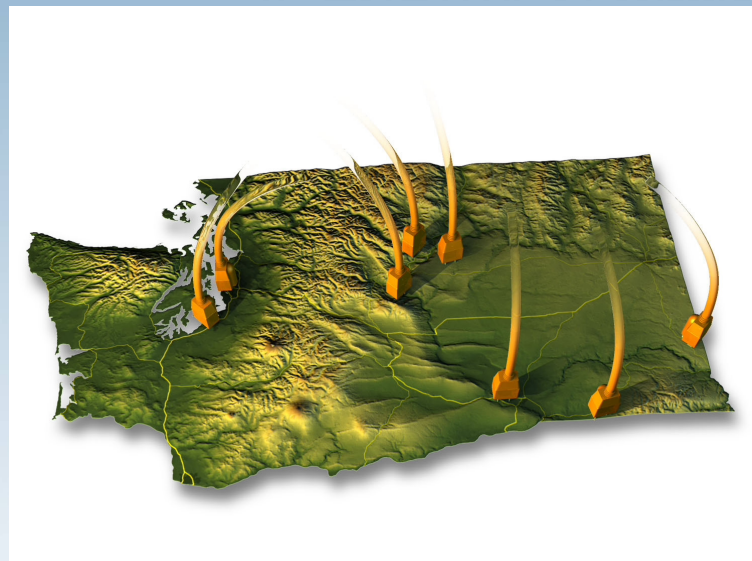


***INL provides independent assessments and guidance to government decision makers; and provides innovation and risk reduction assistance to industry to accelerate commercial deployment of energy options***

## Regional Focusing: Washington State and the Northwest

- Testing will be expanded to include at least 28 vehicles in Washington:

- State of Washington CTED
- Port of Chelan County
- City of Wenatchee
- Green IT Alliance
- Benton County PUD
- Douglas County PUD
- Chelan County Public Works
- University of Washington
- Walla Walla Comm. College
- Wenatchee Valley College
- State of Washington
- Energy Northwest

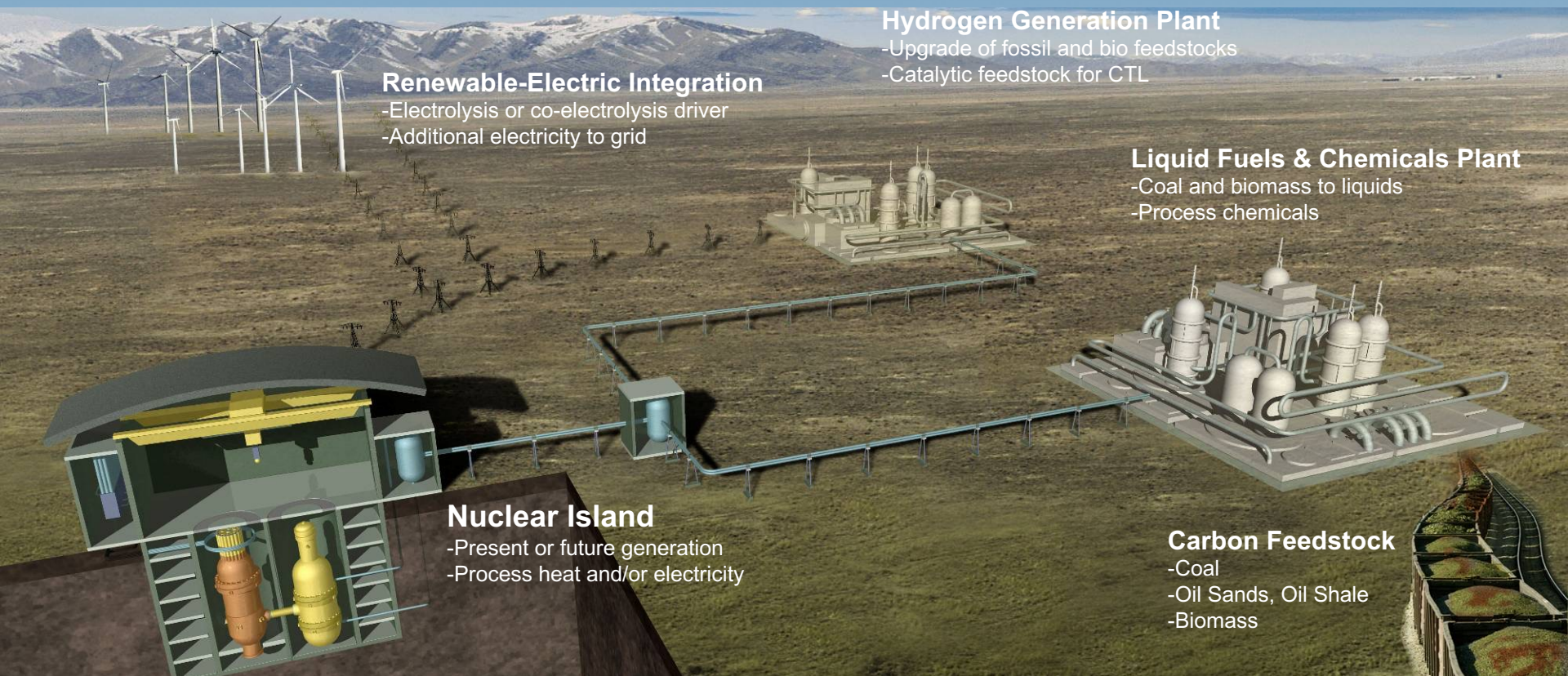


***For a period of time, Washington State will host the largest concentration of PHEVs in North America***

- Eight HICE's in BC being monitored
- Data loggers to be added to selected PHEVs deployed in Oregon



# Our Vision: Hybrid Energy Systems: a Bridge to Energy Security



**Diverse Carbon Resource → Nuclear Hybrid Energy Systems → Strategic Energy Parks = Resilient & Secure Energy**

Context:

# A Balanced Energy Portfolio that Requires Transportation Innovation

## Right Energy, Right Place, Right Time

