Strategic Energy Resources within the Western Energy Corridor:
A Foundation for Regional Energy & Economic Development

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The Western Energy Corridor contains energy resources strategic in meeting North America’s energy security challenges.

The map shows the location of various energy resources, including oil sands, uranium, and coal basins, within the Western Energy Corridor. The map is color-coded to indicate the distribution of these resources across the region.
Unconventional natural gas will have a major impact on energy portfolio investments,
Unlocking the vast energy resources within the Western Energy Corridor will require integrating, optimizing and stewarding a diverse set of North American energy resources, interconnected by a dependable delivery infrastructure, and developed in an environmentally responsible manner.

The energy corridor contains a unique and rich base of carbon, hydrogen and primary energy sources to create fuels, electricity and other products.
The Energy Corridor Forms a Rich Foundation for Establishing Hybrid Energy System Approaches at Multiple Scales

- **Hydrogen Generation Plant**
  - Upgrade of fossil and bio feedstocks
  - Catalytic feedstock for coal to liquids

- **Liquid Fuels & Chemicals Plant**
  - Coal and biomass to liquids
  - Process chemicals

- **Carbon Feedstock**
  - Coal
  - Biomass
  - Recycled carbon

- **Nuclear Island**
  - Present or future generation
  - Process heat and/or electricity

- **Renewable-Electric Integration**
  - Electrolysis or co-electrolysis driver
  - Additional electricity to grid

**Result**
- Drive down carbon footprint
- Leverage existing energy distribution systems
- Energy where you need it when you need it
- Get more renewables to the consumer, faster

**Additional electricity to grid**
Hybrid Energy Systems can help form a foundation for energy security, a renewed industrial base and sustainable economic prosperity within the region.

Hybrid Energy Systems allow communities to move up the energy value chain to create more advanced manufacturing jobs and products.
INL is pursuing creation of a hybrid energy systems testing program which can result in promoting integrated development of regional resources.

HYTEST Regional Testing Relationships
Regional political and technological leadership is essential in addressing our energy and environment grand challenges.

Future regional energy decisions will be made in an increasingly complex environment requiring more sophisticated, science based, decision making tools and applied RD&D to reduce risks.