

Keystone XL Tar Sands Pipeline:

By Any Metric, the Wrong Choice for our Clean Energy Future

The Keystone XL is the latest planned expansion in TransCanada's web of toxic tar sands oil pipelines, designed to increase America's dependence on the world's dirtiest fuel for decades to come.



Keystone XL Basics

- If built, the Keystone XL pipeline would stretch **1,980 miles**, from Hardisty, Alberta to Nederland, Texas.ⁱ
- At full capacity, Keystone XL could carry up to **900,000 barrels per day** of toxic tar sands oil across **6 states**: Montana, South Dakota, Nebraska, Kansas, Oklahoma, and Texas.ⁱⁱ

Tar Sands are Dangerous to Human Life.

- Tar sands oil contains, on average, **11 times** more sulfur, **11 times** more nickel, **6 times** more nitrogen, and **5 times** more lead than conventional oil.ⁱⁱⁱ These pollutants are harmful to **human health** causing lung and respiratory problems such as **asthma** and bronchitis. The metals found in tar sands are **neurotoxic**. The pollutants released by refining tar sands causes **acid rain**, smog, and haze and communities living near refineries report elevated levels of **cancer**.
- A barrel of tar sands oil emits up to **3 times** as much climate-disrupting gas as conventional oil.^{iv} Building Keystone XL would be the greenhouse gas equivalent of adding roughly **6.5 million** passenger vehicles to the road, or constructing **12** new coal-fired power plants.^v
- The proposed route of the Keystone XL pipeline runs directly through the Ogallala Aquifer, putting more than **30%** of the fresh water used in American agriculture at risk of contamination.^{vi}

Keystone XL is Unnecessary.

- Even without the construction of Keystone XL, tar sands extraction cannot keep up with pipeline expansion. Historical projections indicate that the existing network of tar sands pipelines won't be filled until **2036**.^{vii}
- An increase in fuel economy of just **2.5 mpg** would save roughly **900,000 barrels a day** of oil, completely eliminating the need for all the oil that could be carried by this pipeline.^{viii}

The facts of tar sands add up to only one conclusion:
The Keystone XL pipeline should not be built.



Keystone XL Tar Sands Pipeline:

By Any Metric, the Wrong Choice for our Clean Energy Future

- ⁱ James McPherson and Josh Funk. "Canada-US Pipeline on Hold Amid Oil's Recent Woes" 17 Oct 2010. Associated Press.
- ⁱⁱ "TransCanada Keystone L.P. Application for Presidential Permit" September 19, 2008. Web. 26 Oct 2010. <<http://bit.ly/a40aBL>> p. 5.
- ⁱⁱⁱ Benjamin J. Wakefield. The Environmental Integrity Project. "Feeding U.S. Refinery Expansions with Dirty Fuel." June 2008. Web. 8 July 2010. <<http://bit.ly/b0Ptof>> p. 4.
- ^{iv} Woyillowicz, Dan, Chris Severson-Baker, and Marlo Reynolds. *Oil Sands Fever: The Environmental Implications of Canada's Oil Sands Rush*. Pembina Publications. The Pembina Institute, Nov. 2005. Web. 20 Oct. 2010. <<http://bit.ly/c10RdB>>.
- ^v The difference in lifecycle greenhouse gas emissions between conventional gasoline and tar sands oil is 20g CO₂e/MJ (http://www.transportation.anl.gov/modeling_simulation/GREET/index.html).
20g CO₂e/MJ * 5840 MJ/bbl of gasoline * 900,000 bbl/day * 365 days/yr * 1 metric ton/1,000,000g = 38,368,800 metric tons CO₂e/year. The average car contributes 5.8 metric tons of CO₂e/year to the atmosphere (http://www.transportation.anl.gov/modeling_simulation/GREET/index.html)
A 500 MW coal plant produces 3 million metric tons of CO₂e/year. (<http://bit.ly/Xj9mS>).
- ^{vi} Dennehy, K.F. "High Plains regional ground-water study: U.S. Geological Survey Fact Sheet FS-091-00". USGS. 2000 Web. 26 Oct. 2010 <<http://bit.ly/agauqC>>.
- ^{vii} Plains Justice Policy Brief. "The Keystone XL Pipeline: Not Needed, Too Expensive, Better Solutions." May 2010. Web. 26 Oct. 2010. <<http://bit.ly/aDTE3V>> p. 3.
- ^{viii} According to the EPA, average vehicle miles traveled (VMT) per year=12,000 (<http://www.epa.gov/oms/climate/420f05004.htm>). The AEO 2010 reports 2010 average stock mpg as 21.04 mpg and 2010 light vehicle stock as 226.56 million. (((12,000 miles per year/ 21.04mpg)*226,560,000 vehicles)/42 barrels per gallon)/365 days= 8,429,010 bpd of petroleum used by light vehicles. 8,429,010 bpd– (((12,000miles per year/ (21.04mpg+2.5mpg))*226,560,000 vehicles)/42 gallons per barrel)/365 days) = 895,180 bpd of oil savings.