



The Arctic Fox Natural Gas Pipeline

THE FAIRBANKS PIPELINE COMPANY

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AN ALASKAN SOLUTION

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The Primer # 2
2/9/11



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The Arctic Fox's Goals

THE ARCTIC FOX'S GOALS

The Arctic Fox is small, smart, nimble, and quick, but what are his true ambitions?

The Arctic Fox's Goals in Summary

1. Lower Interior Alaska's nondiscretionary energy costs by at least half. If the State is interested, install an Alaskan Hub at a strategic location that can control the future commercial value of ANS and Cook Inlet gas resources into the next century
2. Improve Alaskan air quality by 2015 to lower health risk and to circumvent the potential loss of Federal appropriations in PM 2.5 non-attainment areas such as the FNSB.
3. Provide the State and Producers a means to monetize ANS gas resources in a manner that extracts the highest net value for ANS gas per unit produced over time while leaving enough in the ground for future generations
4. Retain a higher proportion of our wealth-in-resources in Alaska by commercializing ANS gas through a publicly owned natural gas transmission pipeline. If the ownership of the pipeline and its future earnings is retained in Alaskan hands, the transportation component cost of ANS can be kept at a minimum and both its equity and earnings can be retained in Alaska to increase the VOM (velocity of monies) circulating in our local communities. This increase in the VOM will compound the economic value of these monies by a factor of 1.48 over time
5. Initiate a low risk investment plan for all Alaskans by offering partnership shares in the pipeline company returning an minimum annual return on investment of 11% with 0% volatility on share equity
6. Adopt proven and reliable transportation methods that lower energy costs as transported volumes increase to support future economic growth (not attainable by trucking LNG)

The Arctic Fox's Goals in Detail – Goal # 2

The Fox says that he can improve Alaskan air quality by 2015 to lower health risk and to circumvent the potential loss of Federal appropriations in our State's non-attainment areas such as the FNSB

How... you ask the Fox?

He says that first, natural gas is by no means a panacea for the environmental problems caused by our energy dependence. Unless fed through a fuel cell, natural gas is transformed into useful energy through combustion. When **any** fossil fuel is produced, processed or burned, pollutants and greenhouse gases are released into the atmosphere

The combustion of natural gas produces only a fraction of the nitrogen oxide and carbon dioxide emissions of oil and coal, and produces virtually no particulate matter or sulfur dioxide emissions. However, the incidental fugitive release of methane (natural gas) into the atmosphere is problematic because methane is more damaging to the atmosphere than CO₂. Leakage occurs primarily at production and process facilities and where gas is compressed for transportation. While the gas industry has been lax on this issue, its starting to clean up its act under pressure from the EPA, among other organizations

It's undeniable that, when weighing ecological concerns over cost, alternative technologies offer the best solution today. With further technological improvements, these technologies will ultimately provide the best solution for future generations. On the other hand, if carbon taxes are soon levied, their additional cost relative to fossil fuels will be reduced to more palatable levels. **But... once again, at certain cost to the consumer.** According to the *International Monetary Fund*, the cost of paying today versus when alternative technologies become more affordable is the socio-economic decision balance we face today

The Arctic Fox's Goals in Detail – Goal # 2

On the socio-economic decision balance we face today, a contributing writer for the *Economist* said last August that: “Natural gas offers the best opportunity — now — to control emissions. It’s abundant in ways we never expected, it’s cheap, and it emits half as much carbon as other fossil fuels when burnt. Natural gas therefore becomes an attractive transition fuel, as the energy supply moves away from much more damaging polluting sources such as coal and other fossil fuels towards cleaner, renewable technologies until their costs become more affordable.” Below is why:

Fossil Fuel Emission Levels

Pounds per Billion Btu of Energy Input

Pollutant	Natural Gas	Oil	Coal
Carbon Dioxide	117,000	164,000	208,000
Carbon Monoxide	40	33	208
Nitrogen Oxides	92	448	457
Sulfur Dioxide	1	1,122	2,591
Particulates	7	84	2,744
Mercury	0.000	0.007	0.016

Source: EIA - Natural Gas Issues and Trends 1998

The Arctic Fox's Goals in Detail – Goal # 2

The Fox says that every now and then, the occasional bird flies into his lair from distant lands. He takes the time to speak with them because they bring news and offer opposing opinion at times

For example, a confused Cackling goose blown in by a storm over Japan told him that the Kyoto Accord identified natural gas as a sound bridging solution to reduce North America's large greenhouse-gas emissions and over-reliance on coal

He said that two springs ago, a goose that flew in from Canada told him that his friend the frog reads the "Le Bulletin Regional " in Quebec. The frog said that when reporting on a recent EU conference , this newspaper from Quebec quoted an EU official as stating :

"Although 20/20/20 targets strongly favour an increase of renewables in the EU energy mix, gas remains important because overall energy consumption in the EU is expected to rise. Renewables alone will not compensate for the growth of total energy demand and the reduction of other types of energy such as nuclear. Accordingly, the share of gas in overall EU energy consumption is expected to rise, but due to the cleaner nature of gas, emissions will fall, and it will be easier for the EU to meet its targets"

Are you thinking that if its good enough across the pond, it must be good enough for Alaska? The Fox agrees with you. At the same time, he cautions you to not believe natural gas companies that tout gas as the "perfect" solution because it isn't. He says that humans need to focus on improving renewable energy sources so we can wean our race from fossil fuels. In Alaska, he says that it will come later than sooner because of our inherently larger thermal demands, lower useable gain from the sun, and the absence of an electrical grid sufficiently large enough to absorb the comings and goings of wind. While he's bringing gas to town until we get our act together, he expects us to move forward so his kit and their kits can prosper as well and as he unashamedly points out, we humans would be lost without his kind

The Arctic Fox's Goals in Detail – Goal # 2

So there you have it. If you believe the Fox, natural gas is not perfect, but its much better than what we have today

If you look at it from just an ecological perspective :

The Arctic Fox will replace the exceptionally dirty fuels used by the Interior's largest industrial emitters with a cleaner fuel until such time as renewable energy source s improve on cost

If you look at it from a broader socio-economic perspective, one that blends ecological concerns with those of your (and your neighbors') financial capacity to meet escalating energy , health, education expenses then... The Arctic Fox promises to reduce your energy costs by half - while improving air quality

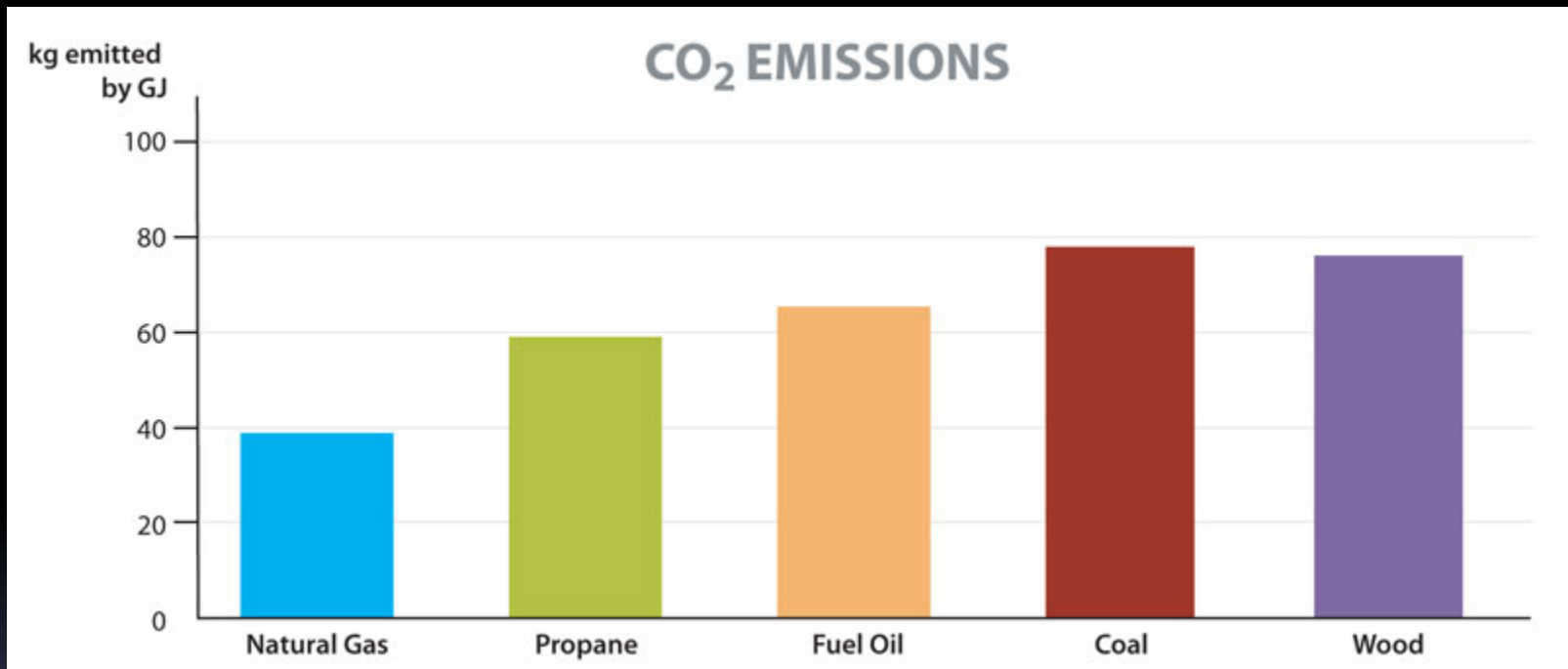
That being said, the Arctic Fox encourages us all to conserve energy because he knows that we humans are wasteful creatures and the best way to manage both our budgets and our air quality is to use less

Find graphic comparisons of the ecological effects of various fossil fuels on the next two slides

The Fox bids you good night and looks forward to visiting you again tomorrow evening to discuss his third goal. To provide the State and Producers a means to monetize ANS gas resources in a manner that extracts the highest net value for ANS gas per unit produced over time while leaving enough in the ground for future generations. Also...the essence of what best value of ANS gas is to Alaskans when placing emphasis on more than just Producers' net profits and the State's take on royalties

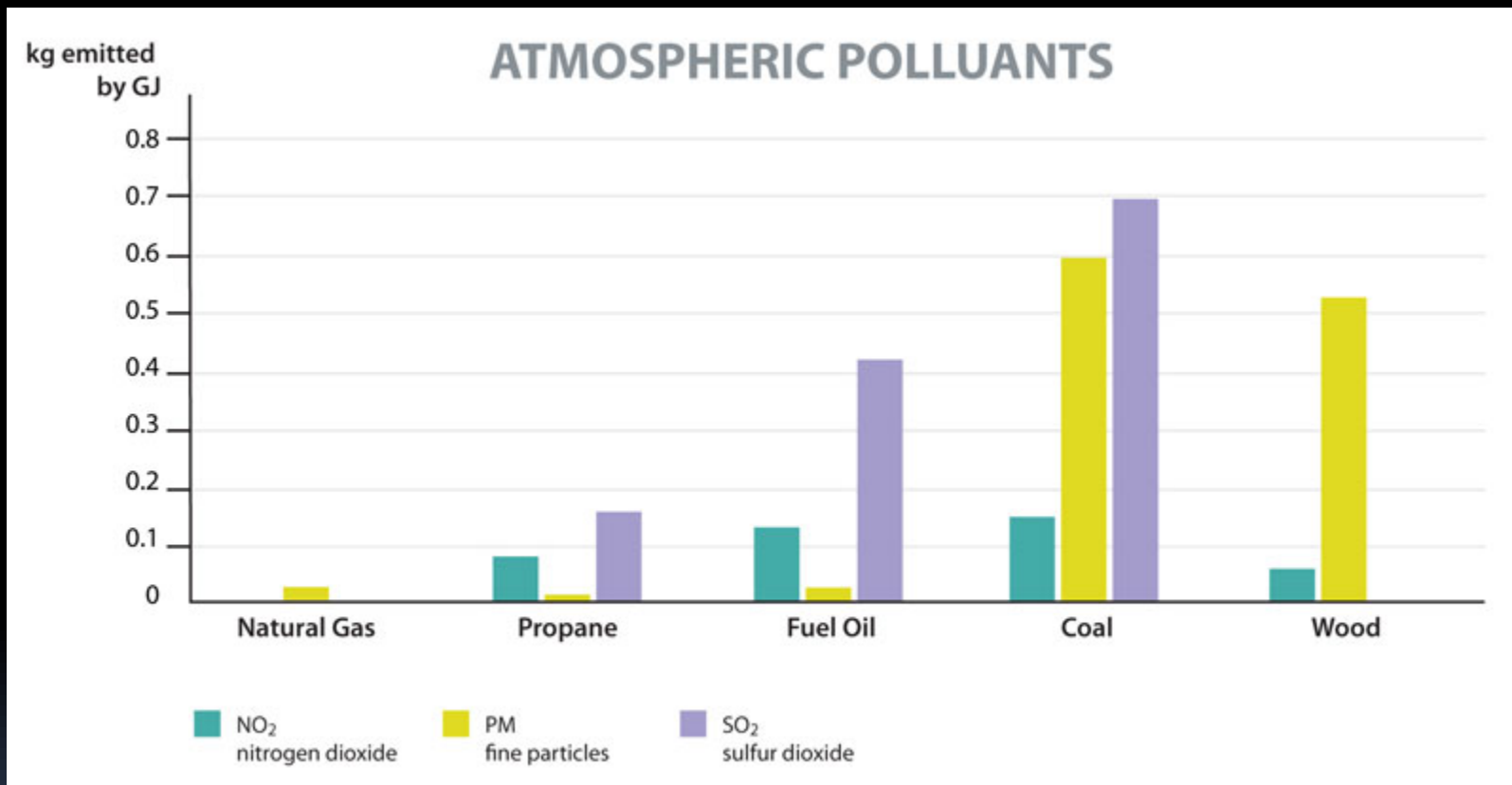
CO₂ is carbon dioxide – what you exhale, what turns tomatoes red...
and what blankets or prevents our heat from escaping through our atmosphere back into space

(Kg emitted by GJ is the same as mass of CO₂ per energy produced)

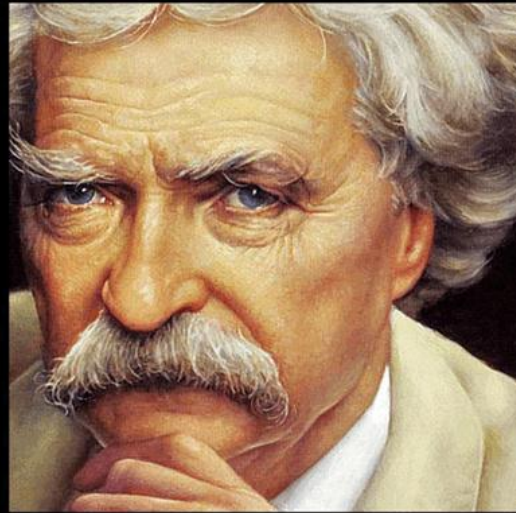


(Polluants = Pollutants in Frog Talk)

(Kg emitted by GJ is the same as mass of pollutants per energy produced)



On our Ways with Energy (among other things)



“Man is the only animal that blushes... or needs to”