Fairbanks Energy

November 2007

Strategic Business Plan

This document contains confidential and proprietary information
belonging exclusively to:

Fairbanks Economic Development Corporation
301 Cushman Street, Suite 301
Fairbanks, Alaska 99701
U.S.A.
(907) 452-2185

The best time to plant a tree was 20 years ago. The second best time is today.
-Chinese Proverb-

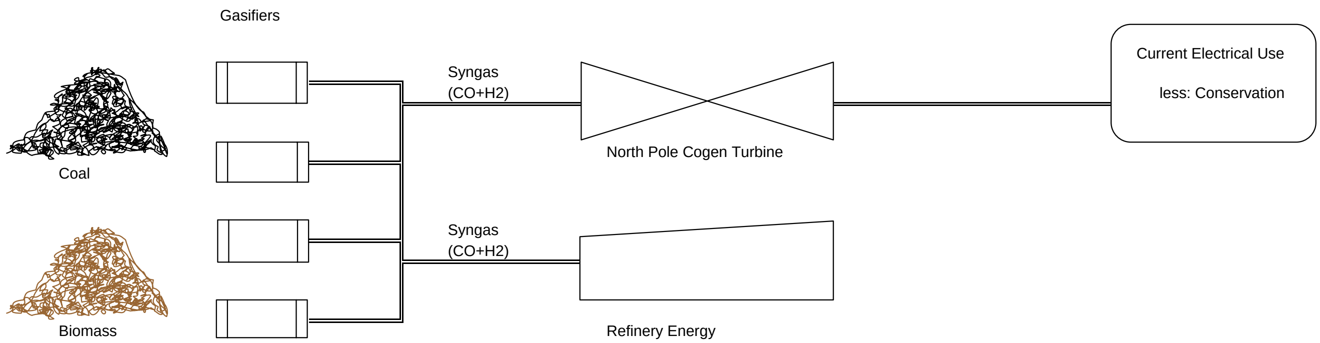
Fairbanks Energy Vision Statement:

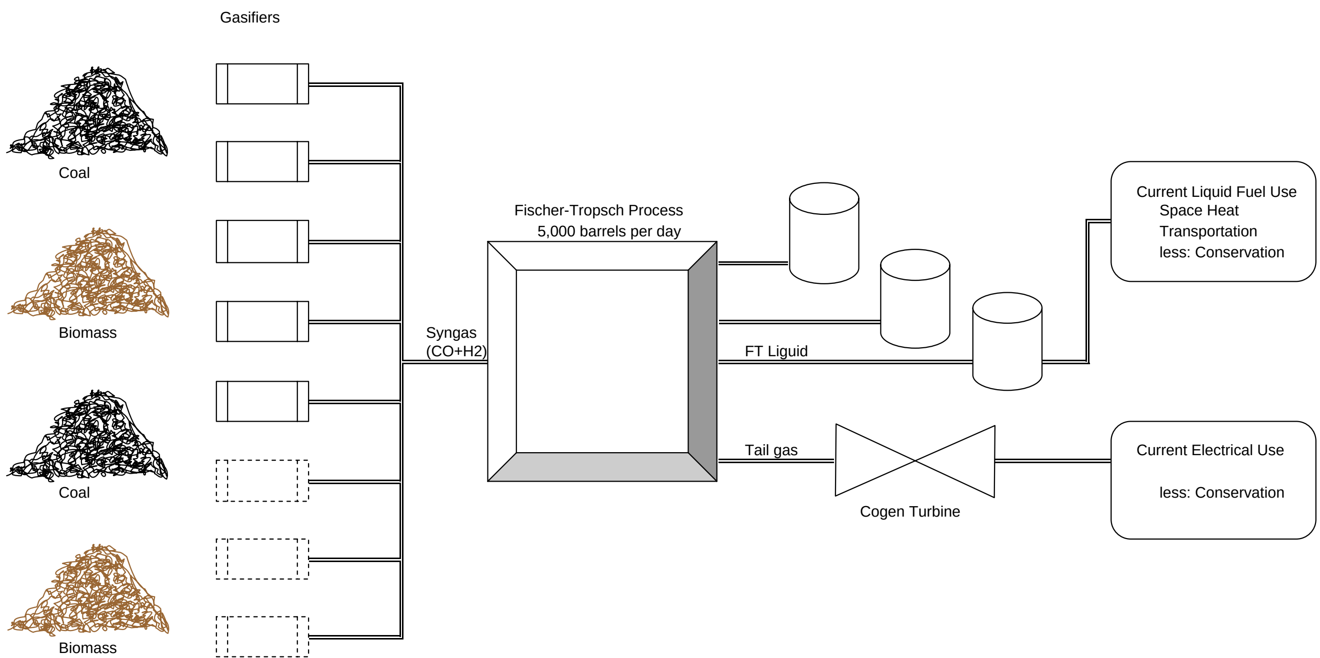
Be the World Leader in Responsible Energy Use and Supply.

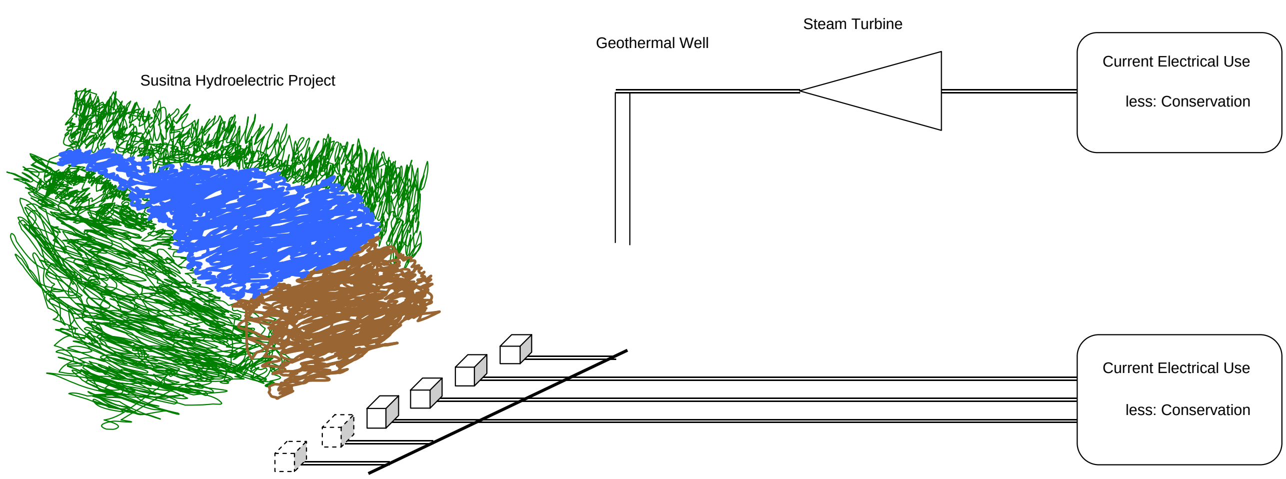
Achievable Objectives under the Fairbanks Energy Strategic Business Plan:

1. Be energy self-sufficient.
2. Reduce Interior Alaska yearly energy costs by $100,000,000.
3. Reduce carbon dioxide emissions to zero.
4. Reduce sulfur emissions to near zero.
5. Reduce heavy metal emissions to near zero.
6. Reduce airborne Particulate Matter ($PM_{2.5}$) to near zero.
7. Utilize tainted water from TAPS and municipal wastewater.
8. Replace base load aging electric generation for 100 years plus.
9. Diversify the Alaskan economic base.
10. Create economic energy, but use it wisely.
11. Grow a culture of energy use awareness and responsibility.
12. Create local jobs in both the supply and responsible use of energy.
13. Grow the local economy through construction and beyond.
14. Enhance partnership with UAF research to resolve local energy issues.
15. Build opportunities for the education and wise use of energy.
16. Invest in long term Alaskan infrastructure.
17. Ensure local control of Alaskan energy businesses.
18. Supply energy products for existing homes and vehicles.
19. Retain wealth in Interior Alaska.
20. Increase disposable income.
21. Shift from non-renewable fuels to sustainable local fuels.
22. Use carbon-neutral fuels rather than using sequestration.
23. Provide a robust vision for all plausible futures.
24. Provide a future for our children, grandchildren and great grandchildren.
25. Brand Fairbanks as: “The place to be, for energy”.

Fairbanks Energy Plan







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Executive Summary

Fairbanks has relied heavily on petroleum as an energy source for electricity, space heating and transportation. The economy of Alaska is being crushed by the increasing cost of crude oil. In 2006, Fairbanks Economic Development Corporation (FEDCO) formed the Interior Issues Council (IIC) to address current local issues. One taskforce that was formed by the IIC was the Cost of Energy Taskforce. The taskforce conducted a screening study to rank energy options based on the total energy consumed in Fairbanks for electric generation, space heating and transportation.

In August 2007 the taskforce was asked to identify energy solutions, which in addition to reducing the cost of energy would reduce $PM_{2.5}$, CO_2 and sulfur emissions. In addition to reduced emissions, several other goals were established, such as use of municipal waste, sustainability, stable priced fuel supply, green energy, economic development and wildfire mitigation. The taskforce conducted a high level financial analysis, which identified significant potential savings from current energy prices.

The significant reduction in energy cost was shown through a combination of conservation and efficiency increases, 600 MW Susitna hydroelectric project, 100 MW Mt. Spurr geothermal, carbon-based fuel gasifiers and a 5,000 barrel per day Fischer-Tropsch (FT) plant. The financial analysis shows an incremental reduction in electrical costs in excess of 50% and in FT diesel in excess of 30%. Using the Fairbanks energy model, the residential energy bill could be reduced by 23%.

Fairbanks' energy future will be secured by leveling the energy playing field by deployment of conservation and efficiency measures in homes and businesses throughout the Borough and by replacing crude oil with FT liquids, Syngas, hydroelectric and geothermal energy sources.

Introduction

Energy and environmental uncertainties are prompting States and our Nation to re-think fundamental policies. Diversity is widely seen as the key to policies for energy security, with diversity of suppliers and in energy-mix for the consumers, and of markets for the producers. But the policy of turning to one energy source to meet new challenges and reduce energy uncertainties can also exacerbate uncertainties or create new ones elsewhere. Amid the uncertainties, there is a fundamental certainty. The State, the Nation, and the World will need more and cleaner energy, used in a more efficient way, accessible and affordable to a larger share of the population. The political challenge lies in creating this energy imperative in a fair and sustainable way, through State and National policies as well as in bilateral, regional and wider global cooperation. More and cleaner energy is moving the world in the direction of natural gas consumption, with carbon dioxide sequestration as a foreseeable trend for coal and oil combustion processes.

Biomass sources, wind power, geothermal, solar and new hydroelectric power projects are also receiving top attention.

As this study was being prepared, the State of Alaska requested proposals for the pipeline delivery of North Slope natural gas to both Alaskan and world markets. All of the alternatives for the natural gas pipeline pass through Fairbanks, and thus, if a pipeline is built, it will offer an additional ample source of fossil fuel for the production of electric power, FT liquids, and home and industrial heating. However, the pricing of the natural gas, while presently unknown, may be competitive with present liquid petroleum fuels, on the one hand, or may be competitive with the more economical energy sources such as hydroelectric and coal which are discussed in this report. It is recognized that the details of a scenario for a Fairbanks natural-gas-fueled economy are not considered in this report, and as the natural gas pipeline plans become more firm, possible scenarios including natural gas need to be formulated.

Concept Statement / Timeline

Conservation and efficiency increases are by far the most effective means of reducing cost, reducing emissions and reducing fuel usage. The beauty of increasing efficiency is we can start today. With available know-how one can immediately start to save money on our utility and home heating bills. There are a multitude of simple measures that range in price and energy savings. Education is key to producing these energy savings, so the casual implementer will know what measure will provide the best bang for their buck. Efficiencies can happen at all levels, from installing compact fluorescent light bulbs to installing the most efficient combined cycle gas turbine. The most significant savings can come from supply-side reductions, not having to install the energy source at all, which saves all capital costs, operation and maintenance costs and fuel costs, after the need has been negated through demand-side conservation or efficiency increases. As cost effective as supply-side reductions are they cannot make up the total energy solution, but are rather one key piece of the energy solution puzzle. Once again, the advantage of conservation and efficiency increases are that they can start immediately, with focused training and substantial initiative.

Secondly, in the mid-term one to two-year window, significant fuel shifting can take place. The installation of gasifiers will provide Syngas from a variety of carbon-based fuels. Little work has been done on the siting of the gasifiers. Traditional siting would indicate the gasifiers be placed close to the fuel source, but with little infrastructure to deliver the Syngas, placement of the gasifiers would likely be near the initial gas usage point in North Pole at the Golden Valley generation site and the Flint Hills refinery. Coal would be the initial fuel source with a shift to locally available biomass to further reduce CO_2 emissions from current petroleum fuels sources.

Thirdly, also in the mid-term one to two year window, additional gasifiers would be installed to provide Syngas to a Fischer-Tropsch plant that could produce zero sulfur FT Diesel, Naphtha, Jet A, electricity and other products. Once again the gasifiers and FT plant should be located near the fuel source. With the existence of a Class I air shed in the Healy area, an alternative site could be considered. Once the coal has been loaded onto rail cars the incremental cost of delivering the coal to Nenana and Fairbanks is very small, so all available sites along the rail system should be considered. If all sites are nearly equivalent, the delivery of the FT product may dictate the appropriate placement of the FT plant.

The development of hydroelectric and geothermal power plants could start very soon, but are not expected to be available for power production for at least 10 years, due to environmental, permitting, design, and construction. The size of these facilities needs further review to ensure the proper sizing of the facilities at initial operation and for generator additions to match electrical needs in future years.

Thought should be given to the use of hydroelectric power as one source of renewable energy for a future hydrogen economy. The renewable energy would be delivered to Fairbanks over electrical transmission lines to power electrolyzers that will generate the hydrogen to power fuel cells for electric, space heating and transportation. Infrastructure and technology need to be developed and available on a commercial basis before the hydrogen economy can become a reality.

Marketing Plan

Simply put, the marketing strategy will be based on a plan to incentivise the Public in the conservation of energy, increases in efficiencies and provide currently used products (electric energy and liquid fuel) at a lower cost. The complete marketing plan will take a significant effort to identify the market and implementation strategy.

SWOT Analysis

Each work group conducted a high level review of the Strengths, Weaknesses, Opportunities and Threats (SWOT) of the energy alternatives, included in the PowerPoint work product. The SWOT analysis can be a useful tool when developing strategic initiatives. Strategic initiatives can be developed that change weaknesses into strengths and threats into opportunities.

Strategic Robustness

It is hard to predict the future with much accuracy. However, one can use the Dow-Shell model that selects several plausible futures and then applies the alternatives to each future to determine the most robust alternative with the aim of attaining a sustainable future.

The four selected futures are as follows:
Rear View Mirror essentially doing what we have always done
Technology hoping technology will provide a solution
Shades of Green going the environmental route
World In Turmoil nobody trusts anybody that globally restrict imports

As an example, in the 80's and 90's it was "Technology would save the day". After 9/11 it was World in Turmoil. Now it is closer to Rear View Mirror, business as usual. Our children will most likely be in Shades of Green. The Taskforce recommendations are more aligned with the Shades of Green but are equally valid in all scenarios suggesting the recommendations provide a robust solution that will work in any of the plausible futures.

For example, evaluating hydroelectric in the Rear View mirror we would see that hydro has been used successfully throughout the world for many hundreds of years. In the Technology future, hydroelectric could improve efficiencies, construction methods and designs or develop fish friendly projects. With Shades of Green, hydro would reduce CO_2 emissions and provide a long-term source for hydrogen. In the World in Turmoil, hydroelectric would negate the importing of fuels, labor or technology.

So, in the case of hydro and gasification of biomass, we would have a very robust answer to all four possible futures.

Services and Products

Energy will be provided as electricity, Syngas ($CO+H^2$) for use in combustion turbines and as a feed stock for the FT plant for the production of zero-sulfur FT Diesel, Jet A and Naphtha. The choice of fuels will be provided to maximize the use of existing infrastructure, such as existing fuel delivery systems and use of FT liquids in home heating systems and vehicles.

A comprehensive energy efficiency program will be developed. It will be comprised of four interdependent subprograms, some of which exist today and others that will need to be developed. The four programs are an outreach and awareness program, an energy evaluation and rating program, a training and certification program and the financial resources program.

Structure and Organization

The taskforce believes that ideal structures for providing Fairbanks with its future fuel and energy supplies would be a low or not-for-profit models, such as a cooperative, Joint Action Agency (JAA) or a Port Authority or other business entity. Electric cooperatives will be limited in sales of fuel, but a JAA would be able to sell electricity and fuel to electric cooperatives, fuel suppliers and industrial users. The Alaska Railbelt Energy Authority (AREA) JAA was formed by the Railbelt electric utilities to provide joint planning and for financing of multi-utility projects. The AREA JAA structure is stated on the website: http://www.alaskanet.com/area . Financing would be secured with pre-construction Power Sales Agreements (PSA).

In the fall of 1999, an initiative was passed by the City of Valdez, the Fairbanks North Star Borough and the North Slope Borough that led to the creation of the All Alaska Gasline Port Authority. One of their goals, "Providing cleaner, more cost effective energy throughout the State", could be realized by first using less energy and providing FT fuels to Alaska. The Authority could also bring the benefits of tax-exempt structure to Alaskan energy picture. Information on the All Alaska Gasline Authority can be found on their website: http://www.allalaskagasline.com .

One structure that was discussed was the formation of a cooperative model that would provide energy efficiency analysis, recommendation on energy saving projects and financing for various improvements in energy efficiency. The member's electric or fuel bill could show the savings and the cost of debt repayment.

Financials

The comparative financials were conducted on an incremental basis using the best available information for capital costs , operations and maintenance expenses, fuel expenses and a small margin component.

All data and assumptions are listed in the model worksheet Renewable Flow 10-07.

600,000 kilowatts Susitna Hydroelectric Project Output: $0.0558/kilowatt-hour (62%)
100,000 kilowatts Mt. Spurr Geothermal Project Output: $0.0571/kilowatt-hour (61%)
60,000 kilowatts LM6000 1x1+on Syngas Output: $0.0720/kilowatt-hour (51%)
Computed 2007 Electric Equivalent Cost $0.148/kilowatt-hour

5,000 barrels/day Gasifier/ Fischer-Tropsch Plant Output: $1.86/gallon of FT Diesel (21%)
Current Petroleum Wholesale Diesel Costs $2.37/gallon of Diesel

500 gallon/year savings Conservation/efficiency – new boiler Fuel Savings:
$1,400/year at $2.80/gallon

The percentages are the percent saving over the current equivalent price.

A snapshot comparison model was created that quantifies all the energy consumed in Interior Alaska for electric, space heating and highway transportation. The base case model is based on 2005 usages levels with prices adjusted to October 2007 fuel prices, All costs are included in the electrical to show the true cost of electricity and accurately reflect the sunk cost of existing capital investments, which must be paid for whether running or not. Space heating and transportation reflect the cost of fuel only, so a fuel type switch may require capital costs that are not included in the model but not if the switch is from diesel to FT diesel. Two snapshots were developed to test for anticipated cost savings, 1) Mid-term which includes gasification with the Syngas used in the LM6000 turbine for electrical generation and a Fischer-Tropsch process for FT liquid fuels, and 2) Long-term which replaces all liquid-fueled electric generation with energy from Susitna hydroelectric project and Mt. Spur geothermal power plant. The following lists the total yearly cost of energy in Interior Alaska and the total yearly cost per residence. Susitna hydro and Mt Spur will be used as the primary electrical generation in the Railbelt with the aging Railbelt generation placed in standby in the event of a electrical system interruption.

	Total Fairbanks Energy		Residential Energy	
	$/year	Delta%	$/year	Delta %
Base Case	$ 434,700,000		$ 6,353	
Mid-Term	$ 331,500,000	(24%)	$ 4,831	(24%)
Long-term	$ 337,500,000	(22%)	$ 4,877	(23%)

The major components of the yearly energy costs per Residence, not counting efficiency increases or usage reductions, are shown below:

	Base	Mid-Term	Long-Term
Electric	$1,311	$1,096	$1,142
Space Heating	$2,807	$2,073	$2,073
Transportation-Hwy	$2,235	$1,662	$1,662
Total Annual Cost	$6,353	$4,831	$4,877

One would expect the long-term costs to be lower than the mid-term costs. The mid-term solution uses existing generation infrastructure, which is approaching its economic useful life. In the next 10 years, there will be 1,000 megawatts of electrical generation within the Railbelt that will need to be replaced at a cost of $1 –2 billion, which is not included in the mid-term cost. The long-term solution includes the cost of new generation infrastructure and effectively negates the need to replace the aging turbines with similar combustion technology.

Conservation and efficiency increases can drive significant savings and are considered a key piece of the overall energy solution, which should proceed immediately. The cheapest kilowatt is the one you don't have to build or replace. With conservation and energy efficiency increases, we anticipate 20-30% saving from the "low hanging fruit" of building energy use. The conservation programs could be financed from these savings..

State of Alaska Assistance

Several levels of State participation would be helpful such as:

- Sharing project risk
- Back-stopping the debt to achieve a lower interest rate,
- Access to tax-exempt financing
- Use of existing State funds to finance debt at a tax-exempt rate.
- Access and use of State land for the growth and harvesting of biomass

Carbon Management

There is general consensus that the release of carbon dioxide into the atmosphere will be restricted in the near future. There are two general approaches to the management of carbon emissions: Carbon sequestration to capture and store post combustion CO_2; or use of a fuel that is not carbon based or at least carbon neutral. Carbon sequestration is currently not commercially available for either large volume emitters such as power plants or smaller emitters such as home heating systems or vehicles.

Biomass fuels are considered carbon-neutral if they have a short time from release to sequestration back in the biomass source. Willow, aspen and poplar are considered to have a five to seven year carbon life cycle. Carbon neutral fuels are available in Alaska and could become more cost competitive if they were farmed to increase the fuel density and reduce the material handling and processing costs. An economic analysis of carbon sequestration options compared to use of a more expensive carbon-neutral biomass fuel, should be conducted to identify the most environmental and economic option. Carbon taxes could add significant costs for non-renewable carbon based fuel usage, but there are currently no final tax schemes to use in a cost analysis. More work needs to be done on the use of biomass in Alaska to answer questions about summer time harvesting, irrigation, soil depletion, fuel density, risk of reduced biodiversity, etc.

The use of CO_2 sequestration combined with the FT process can include either coal-fired, natural gas fired, or biomass-fired installations. For coal or natural gas feed stocks, CO_2 sequestration makes them carbon neutral, and for biomass feed stocks, biomass re-growth combined with CO_2 sequestration actually causes a NET removal of CO_2 from the atmosphere!

Different fuel sources emit different amounts of CO_2. The following table estimates the pounds of CO_2 per million BTUs:

Fuel Type	Pounds of CO_2/mmBTU of fuel
SynGas*	101.26 #/mmBTU
Natural Gas	116.39 #/mmBTU
Gasoline	154.91 #/mmBTU
Petroleum Diesel	159.66 #/mmBTU
Wood	250.00 #/mmBTU
Coal	211.91 #/mmBTU

* Based on the Wiley gasifier specification.

The Fairbanks energy snapshot model was used to compute the level of CO_2 emissions (in pounds - #) for current, mid-term and long-term fuel source recommendations.

	Base Case	Mid-Term	Long-Term
Electrical	1.875 billion #	1.723 billion #	0.002 billion #
Space Heating	1.242 billion #	1.308 billion #	1.306 billion #
Transportation	1.042 billion #	1.089 billion #	1.089 billion #
Total CO_2 Emissions	4.158 billion #	4.121 billion #	2.397 billion #

The largest shift is from combustion to hydroelectric and/or geothermal, which have near zero carbon emissions. The mid-term Space Heating and Transportation emissions can be greatly reduced through the use of a biomass feedstock, which is considered carbon neutral. The amount of biomass used as feedstock for gasification will be limited by previously mentioned factors that need more research. As it may be possible to operate with 100% biomass, it may not be practical. Shifting to hydro and/or geothermal will place Alaska ahead of all other States and integrating maximum biomass could take Alaska off the carbon map completely.

Many strategies have been developed for carbon dioxide sequestration in the case of conventional fossil-fueled-combustion-based electric generation facilities. Since air is fed into the combustion chamber, the product gas mixture contains a major quantity of nitrogen, as well as carbon dioxide, water vapor, and often sulfur dioxide and nitrogen oxides, along with ash particulates. Hence, separation processes have been created, based upon chemical reactions or physical properties, which separate the carbon dioxide and segregate it. If industrial use of the carbon dioxide is planned, a high purity of carbon dioxide is desired, usually obtained at a higher process cost.

Chemical processes for carbon dioxide selection include the use of amine scrubbing, ammonia, limestone, carbonates, layered double hydroxides, zeolites, metal/organic/framework structures, and membranes. Biological fixation involves photosynthesis in various organisms. Cold separation has been proposed using an integrated cascade chiller.

In the IGCC processes, however, many of the processes involve the prior separation of oxygen from the air. Nitrogen is diverted or released back to the atmosphere after oxygen separation. This simplifies the treatment of the exhaust gases in some cases.

IGCC is a clean coal technology that combines two technologies – coal gasification and combined cycle – to achieve the environmental benefits of gas-fired generation with the thermal performance of a combined-cycle plant.

The oxygen-fed processes include those of Lurgi, BGL, HTW, KBR, Chevron Texaco, Conoco-Phillips, Future Energy, Koppers-Totzek, and Shell SCGP. The Wiley process uses pyrolysis, under a vacuum condition, excluding both nitrogen and oxygen. For all of these processes for the production of synthesis gas, and the use of synthesis gas for firing a gas turbine and for Fischer-Tropsch production of liquid synthetic fuels, the product gases will only contain nitrogen if air is used in the turbine combustion stage. The oxygen-based processes presumably will have oxygen separation equipment which could be sized large enough so that sufficient oxygen would be available for combustion. In that case, the product gases would be carbon dioxide and water, for which simple sequestration options may be considered.

One option which is naturally considered in a cold climate such as Alaska is the integrated cascade chiller, which is a conceptual design proposed by Clodic et al. of Ecole des Mines de Paris, at the Greenhouse Gas Control Technology 6 Conference. Chilling of the gas to -120^oC solidifies the water and the carbon dioxide, depending upon the pressure. In an Alaskan application, the storage of such a frost mixture or of a carbon-dioxide-based gas hydrate in an underground cavern could be considered. Of course, the simple separation of the water vapor at modest negative temperatures, followed by injection of carbon dioxide gas into an available porus geological stratum, would be even more economical. Clearly, conceptual research on these possibilities is needed.

Comparative Future Costs of Diesel

When the oil price reached about $60/bbl in 2006, the OPEC leadership expressed concern and began to meet to find ways to put a floor under the price. They were successful, and from July to November 2007, the price rose from $70/bbl to $98/bbl. In early November 2007, the Fairbanks price for heating oil was at $3.00/gallon or $126/bbl, while Alaska North Slope crude was $93.96/bbl, giving a refining margin for diesel of $32/bbl. This compares with average refining margins of $3.50/bbl to $4.00/bbl several years before, across the USA. Considering the years 2011 to 2027 and beyond, when a Fairbanks FT plant could be operating, it is likely that the refining margin of $32/bbl will prevail, if the trans-Alaska oil pipeline is still operating. When the trans-Alaska pipeline no longer delivers North Slope crude oil, refined product from Washington or California will be exported to Alaska at a similar price mark-up.

A forecast of world oil price has been made which includes the effects of the 4%/year exchange rate decrease between the US$ and the Euro; which also allows for the announced plans to increase strategic reserves in the major consuming countries over the next three years, by 2%/year; which allows for an inflationary rise in oil price equal to the increase in world GDP projected at 3.8%/year; and which allows for a 5%/year increase from 2007 until 2020 due to an oil demand/supply shortfall and the construction of many gas-to-liquids and coal-to-liquids plants to attempt to meet the demand for liquid transportation fuels. The following price prediction chart can be made for diesel fuel which is delivered from refineries until the year 2027. Synthetic fuels plants operated by profit-making corporations may be expected to follow this dominant pricing level. The price in 2026 is estimated at $246.49/bbl or $5.87/gallon for diesel fuel/heating oil in Fairbanks, Alaska.

TABLE I. POSSIBLE RANGE FOR WORLD OIL PRICES, 2007-2027 per Barrel.

YEAR	Annual Average Minimum Price[1]	Annual Av Price Incl.GDP Rise[2]	Annual Av Price Incl. Supply Shortfalls[3]	Av Diesel Price[4]
2007	$60.00	$62.28	$67.28	$99.28
2008	$63.60	$66.02	$76.02	$108.02
2009	$67.42	$69.98	$84.98	$116.98
2010	$71.46	$74.18	$94.18	$126.18
2011	$74.32	$77.14	$102.14	$134.14
2012	$77.29	$80.23	$110.23	$142.23
2013	$80.38	$83.43	$118.43	$150.43
2014	$83.60	$86.78	$126.78	$158.78
2015	$86.94	$90.24	$135.24	$167.24
2016	$90.42	$93.86	$143.86	$175.86
2017	$94.04	$97.61	$152.61	$184.61
2018	$97.80	$101.52	$161.52	$193.52
2019	$101.71	$105.57	$170.57	$202.57
2020	$105.78	$109.80	$179.80	$211.80
2021	$110.01	$114.19	$184.19	$216.19
2022	$114.41	$118.76	$188.76	$220.76
2023	$118.99	$123.51	$193.51	$225.51
2024	$123.75	$128.45	$198.45	$230.45
2025	$128.70	$133.59	$203.59	$235.59
2026	$139.20	$144.49	$214.49	$246.49

Notes

1. Assuming a 2%/yr price increase over three years due to increases in strategic reserves, and a 4%/yr increase over twenty years due to exchange rate creep between the Euro and the US$.

2. Assuming an additional 3.8%/yr increase over twenty years due to increase in World GDP.

3. Assuming an additional $5/bbl/year from 2007 to 2014; a continued $5/bbl/year from 2014 to 2019; and no additional per-barrel premium from 2020 to 2027, all due to the shortfall between demand and supply of conventional and tar sand oil until 2020, when gas-to liquids and coal-to-liquids technology is expected to be fully introduced. Risk premium due to war or threat of war, terrorism, labor unrest, major weather events such as hurricanes, major fires in large export terminals, revolutions, anarchy, or changes in governmental leadership policies leading to a dramatic loss of production, are NOT included.

4. Diesel price in US$/bbl, rack price, fob Fairbanks, Alaska, based upon a $32.00/bbl refining margin. Divide by 42 to get $/gallon price.

Contingencies

As a general approach, an approach should be selected that will work and then improve on the approach to achieve our intended results of reducing the cost of energy to Interior residents, reducing carbon and other emissions, and retention of local wealth. For example, gasification could start using coal as a feed stock and as biomass becomes commercially available more and more biomass would be used until 100% biomass feedstock has been achieved or the biomass supply limit has been reached.

Exit Strategy

Market loss can bring considerable risk. The strength of the FT process is that the Syngas can be used to make other products such as hydrogen, ammonium nitrate, or paraffin to allow for a market shift. Market expansion could also be available in the provision of Jet A or naphtha to local markets or export to rural areas.