Seven Generations Energy Ltd. (TSX:VII) Pitch

Underappreciated growth opportunity

Summary

Seven Generations (TSX:VII) is an independent oil and gas producer based entirely in Western Canada. Specifically, VII operates in the Kakwa River Project, in the Montney Region.

Investment Thesis 1: Economies of Scale

– VII has been able to build and take ownership of their infrastructure assets. This is extremely important, because it not only gives them full control over their operations, which is already a significant advantage, but it also allows them to lower their cost of operations

Investment Thesis 2: End Market Diversification

– VII’s management has made sourcing alternative markets for its products a key part of its long-term business strategy. We feel that this will provide the company with a clear competitive advantage over time, and will enable the company to expand margins while experiencing less uncertainty

Investment Thesis 3: Superior Cost Reductions

– VII possesses an industry leading low-cost structure, affording them resiliency in times of volatile oil prices. Management has consistently been willing to invest in new technologies, processes, and resource bases, which all improve well economics
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Company Overview

Business Model: Seven Generations (TSX:VII) is an independent oil and gas producer based entirely in Western Canada. Specifically, VII operates in the Kakwa River Project, which is within the Montney Region. Unlike most Montney producers who focus on natural gas extraction, VII has a special focus on the production of NGLs (natural gas liquids) and condensate, which is a light hydrocarbon by-product of natural gas production.

Brief History: Seven Generations Energy Ltd. was founded in 2008 by management and multiple private investors. VII quickly acquired valuable assets via the acquisition of Samson Energy. The three pieces of land acquired were in the Kakwa region of Northern Alberta, the Bakken in North Dakota, and the Horn River in North-East British Columbia. Between 2008 and 2010, management spent time examining the different fields and ultimately decided to sell off the North Dakota and BC assets, with the aim of focusing operations and capital on the Kakwa River site.

Testing at the site had suggested the region was fit to support a large scale liquid natural gas project, but the earliest wells shocked management and shareholders, as the wells began producing up to 200x conventional expectations. Soon after, VII received a large capital investment from CPPIB (who, to this day, is still the company’s largest shareholder). With this capital, VII ramped-up production capacities and accelerated their horizontal drilling developments. In 2014, when it was determined that further capital was needed, VII went public on the TSX under the ticker “VII”. With this capital, VII again advanced their drilling progress, and secured multiple vital midstream agreements with players such as TransCanada and Alliance.

The VII name derives from the Native-American concept of considering how your actions will impact the lives of the 7th generation after your own.
Current Performance / Trends: In the summer of 2016, VII completed an additional acquisition of Paramount’s Kakwa Montney assets, demonstrating VII’s commitment to growth in the area. This news also comes as VII continues to ramp up production, with 2016 expected to yield between 120,000 and 125,000 boe/d. At these levels, the production CAGR over the past five years would be 122%. Revenue has demonstrated similar growth, with a 100% CAGR over the same period. Additionally, last month, VII announced an agreement with Steelhead LNG, where VII will buy a minority stake in a LNG export port on Vancouver Island. This project was at the time considered to be a “long shot” by most analysts due to the different pipelines the plant would need in order to operate. However, as time moved forward, the odds of the plants completion have continued to increase. It is worth noting that the investment is in the “other” category of VII’s CapEx plan (which is limited to only 5% of the $1.05B – $1.1B budget).

EXHIBIT 2
MAP OF OPERATIONS

EXHIBIT 3
Management Overview

Patrick Carlson
Title: CEO and Director
Salary: $7,400,000 CAD
Experience: Mr. Carlson is the founding CEO of VII which is his fourth start-up, following North American Oil Sands Ltd., Krang Energy, and Passage Energy. Through these endeavors, Mr. Carlson has accumulated over 40 years of experience.
Education: Mr. Carlson holds a Bachelor of Science in Chemical Engineering from the University of Calgary.

Marty Proctor
Title: President & COO
Salary: $1,275,000 CAD
Experience: Mr. Proctor has served as the President and COO since 2014. Previously, Mr. proctor served in various leadership positions within the industry, such as COO of Baytex Energy, for a total 27 years of relevant experience.
Education: Mr. Proctor holds multiple degrees in Petroleum Engineering from the University of Alberta.

Christopher Law
Title: CFO
Salary: $3,200,000 CAD
Experience: Mr. Law joined VII in 2008 and most recently served as VP, Corporate Planning. Prior to VII, Mr. law held corporate positions with both Western Oil Sands and Marathon Oil Corporation.
Education: Mr. Law holds an MBA from the University of Calgary and a Bachelor of Economics from the University of Victoria.

Sources: S&P Capital IQ
Industry Overview: Montney Resource

The Montney Resource was formed over 250 million years ago in what is now known as the Triassic Period. Today it is one of Canada's largest resource formations, primarily focused on natural gas production. It currently accounts for 25% of the overall Western Sedimentary Basin natural gas production and has represented 50% of the region's production growth since 2008. In 2013, the National Energy Board estimated that the resource as a whole had 449 trillion cubic feet of natural gas (4x the reserves found in the Marcellus) as well as 14.5 billion barrels of NGL and 1.1 billion barrels of oil.

While oil and gas production has been taking place in the Montney play since the 1950s, traditional methods of drilling could only reach the resources trapped within conventional sandstone and dolostone. Recent technological advances such as horizontal drilling and fracturing now allow drillers to access the much larger reserves entrapped by siltstone (similar to shale).

Key Producers: Other notable producers that operate in the Montney basin include: Encana Corp (ECA), Progress Energy, ARC Resources (ARC), Shell (RDSA), Birchcliff Energy (BIR), Tourmaline Oil Corp (TOU), Canadian Natural Resources (CNQ), and Advantage Oil & Gas (AAV).

EXHIBIT 5

1H16 Production (boe/d)

Montney Resource Production

Source: EIA
Investment Thesis I: Economies of Scale

Size as a competitive advantage

It may seem strange to present the idea of size as a competitive advantage in a report covering a mid-sized E&P in Canada; however, we believe that due to VII’s remarkable growth profile, this concept is both applicable and underappreciated. As illustrated in Exhibit 6, VII has demonstrated their ability to grow at prolific rates. Over the past five years VII’s production has grown at a CAGR of 122% and is forecasted to grow at 106% in 2016 and 40% in 2017. By 2017, VII is expected to produce on average 450 mmcf/d, which is roughly 1/3 of what CNQ, Canada’s largest natural gas E&P, produces. When combined with the fact that VII produces in a very concentrated area, it becomes clear that despite its mid-sized classification, it will be able to realize significant economies of scale.

One of the many ways VII’s size advantages them is through the ability to build out and own their infrastructure assets. This is extremely important, because it not only gives them control over their operations, which is already a significant advantage, but it also allows them to lower their cost of operations. When Pat Carlson, CEO of VII, wrote his address in the 2015 annual report, he noted that multiple small producers have been forced to sell themselves due to the combination of commodity price pressures and extraction costs relating to third party infrastructure. He wrote that a major factor determining where a company fell on the cost of production scale was the decision to outsource infrastructure needs, and that this in turn determined who was able to remain solvent.

One recent event that has helped VII further develop its growth profile, and which demonstrates its desire to utilize economies of scale, is the acquisition of Paramount’s Montney assets. Due to the synergistic nature of VII’s Nest 2 infrastructure assets, driven by proximity (see Exhibit 7), the company should be able to reduce the cost of existing and future production resulting from this acquisition.

In summary, the energy team believes that the market is underappreciating the economies of scale that VII is exposed to due to its youth and current production numbers. This will result in VII continuing to surprise upwards on earnings as it is able to lower costs through vertical integration.
Investment Thesis II: End Market Exposure

Despite having favorable contracts in place for LNG delivery through 2020, VII’s management has made sourcing alternative markets for its products a key part of its long-term business strategy. We feel that this will provide the company with a clear competitive advantage over time, and will enable the company to expand margins while experiencing less uncertainty.

Historically, the Canadian energy sector has been impaired by its inability to diversify its customer base. 98% of Canadian oil and gas exports are delivered to customers in the United States, which puts downwards pressure on pricing as a lack of midstream infrastructure forces producers to compete on price. This dynamic is the key force that has driven the historical discount for Canadian oil and gas compared to global benchmarks. VII is cognisant of this issue, and has described their current Alberta and Chicago markets as “red ocean markets, where the aggressive competition by competitors with similar strategies brings to mind bloody waters of a shark feeding frenzy.”

In order to push back against these trends in the long term, the company has taken several steps towards finding and developing new, alternative markets for its product. Specifically the company has determined three key areas of focus where they could look to exploit less competitive market conditions.

1) **Manufacturing petrochemical products**: The company could look to refine product from its existing resources, possibly with participation in an Alberta Government incentive program.

2) **Natural gas combined cycle electrical power generation**: As the government of Alberta looks to phase out coal generated power, there is opportunity for natural gas based electricity producers.

3) **LNG and/or Liquefied Petroleum Gas (LPG) export from North America’s West Coast**: Due to BC’s proximity to northern Asia, Canadian exports could supply the region with cost-competitive LNG product.

EXHIBIT 8

**AECO Discount to Henry Hub**

*Canadian producers have been impaired by weak product pricing*

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**Sources:** Annual Report, RBC, Alberta Energy Regulator, Natural Resources Canada
Investment Thesis II: Continued

Case Study: Steelhead LNG Partnership

While many producers have identified a need for increased customer diversification, VII has actively taken steps towards achieving this goal. Recently, the company entered into a strategic agreement with Steelhead LNG that will allow the two companies to work together to further the prospect for LNG development and export in British Columbia.

Steelhead currently has two key projects that they are working to develop, which would ultimately provide LNG export capabilities to Asian markets. Under the agreement, VII acquired a minority stake in Steelhead and will receive preferential access to its infrastructure, should the projects be completed. The company’s decision to partner with Steelhead was driven by the attractive nature of the proposed facilities, which are designed as floating terminals and, therefore, create less environmental disturbance. Ultimately, we feel this is just one example of the steps being taken by management to diversify the company’s end markets.

Steelhead’s Proposed Projects – Key Facts

**Malahat LNG Terminal**

This project would be designed as a floating storage and offload facility on the southeast corner of Vancouver Island. The National Energy Board has granted Steelhead a 25-year license to export approximately 0.8 bcf/d of gas from the proposed project site. While a pipeline connection is currently unavailable, Steelhead has proposed an “Island Gas Connector,” pipeline that would run from Sumas, WA to the project site. A final investment decision is expected in 2018 and VII has yet to formally commit volumes to the project at this time.

**Sarita LNG Terminal**

This early-stage project is currently in the preliminary engineering and design phase. In 2014, the Huu-ay-aht First Nations voted in favor of the continued evaluation of the project. The National Energy Board has granted the company a license to export 3.2 bcf/d from the project site over a 25 year period.

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**EXHIBIT 9**

**Chinese LNG Demand Growth**

![Bar chart showing Chinese LNG demand growth with CAGR of 7.05%]

- **Domestic Production**
- **Pipeline Imports - Turkmenistan/Central Asia**
- **Pipeline Imports - Myanmar**
- **Pipeline Imports - East Siberia**
- **LNG Imports**

Sources: EIA, Company Reports
EXHIBIT 10

Proposed Malahat Facility

Steelhead’s most developed project is their proposed Malahat LNG Facility

Source: Company Reports
Investment Thesis III: Superior Cost Structure

One of the most attractive dimensions of VII is their industry leading low-cost structure, affording them resiliency in times of volatile commodity prices. Management has consistently been willing to innovate through investments in new technologies, processes, or resource bases, allowing them to improve well economics. Oil and gas companies tend to be risk-averse, and as a result, are late to exploit opportunities presented by technical advances. This disconnect has earned VII a reputation as one of the most innovative companies in Alberta. While the company’s low cost structure was founded on an economical resource base, the Kakwa River, VII has strengthened this advantage through the use of technology, affording them a significant competitive moat.

Technological Investments

Super Pads

Perhaps VII’s biggest technological investment has been in their “Super Pads.” Each pad acts as a small gas plant, with compression, dehydration, and fluid catching facilities on site that can perform a three-phase separation of the gas that’s drilled underneath them. At capacity, each pad can handle 50,000 mcf/d of gas and 10,000 bbls/d of condensate, and because the compression facilities are on site, each length of pipe can handle more gas.

VII currently has 8 super pads, and is looking to add a 9th by the end of 2016. The main benefit of super pads is the concentrated infrastructure, in that more wells on a pad provide efficiencies of scale. VII has reduced their drilling and completion costs by 40% as a result of the super pads, and has reduced the cost of drilling from $4,000 to $1,000/ lateral metre (Exhibit 11).

As VII continues to add more super pads, specifically to Nest 2, and diversifies their access to markets, we expect the benefits of these super pads to be compounded.

Tighter Frac Spacing

VII has tested tighter frac spacing of 55 m between fracs versus a previous 110 m between fracs throughout 2016. As of 3Q16, VII estimates that tighter frac spacing could add 300 boe/d of incremental first year production at a cost of $1.6 MM, which translates into $5.3 m/boe/d in capex efficiencies, illustrating VII’s ability to lower costs through the adoption of better practices.

Slickwater

At the beginning of 2016, VII transitioned from using primarily nitrogen foam completions to slickwater hydraulic fractures, which rely on high volumes of water instead of chemical additives. 3Q16 estimates showed that each stage of completion using slickwater fracturing is 25% less expensive than nitrified foam completions, and could reduce overall well costs by $1 MM/ well.

And while these results are only based on 120-180 days of history, the effects of this transition could translate into material cost savings in 2017, further affirming VII’s position as the low-cost competitor.

EXHIBIT 11

Average D&C Costs ($MM)

Source: Company Reports
Catalysts and Risks

Catalysts

AECO/NYMEX Spread

The AECO/NYMEX spread refers to the difference between NYMEX, the international price benchmark for natural gas, and AECO, the Canadian benchmark for natural gas. The performance of Seven Generations is partially tied to the strength of the Canadian AECO, which fluctuates largely with changes in import/export laws, international trade, and imposed tariffs. More generally, changes in the ability for Canadian gas companies to export their products are significant in the performance of Canadian energy companies. Approved pipelines, trade agreements or energy-friendly export legislation will directly benefit gas producers.

LNG Approval

As discussed, in September of 2016, VII acquired a private stake in Vancouver-based Steelhead LNG. The companies have agreed to explore development through two new proposed gas projects on Vancouver Island with a total output of 30-million-tonnes-per-year. The regulatory approval process is expected to take 2-3 years and will provide VII the opportunity to diversify and grow their energy portfolio.

EXHIBIT 12

Canadian LNG Projects near FID

<table>
<thead>
<tr>
<th>Facility</th>
<th>Capacity</th>
<th>Decision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarita</td>
<td>24MM tonnes/year</td>
<td>2018-2019</td>
</tr>
<tr>
<td>Malahat</td>
<td>6MM tonnes/year</td>
<td>2018</td>
</tr>
<tr>
<td>IGC</td>
<td>Corresponding Pipeline</td>
<td>2018-2019</td>
</tr>
</tbody>
</table>

Source: The Globe and Mail

Risks

Water Production

A production review of VII’ facility output in Kakwa determined there to be greater volumes of water in the produced solution than usual. These findings were later corrected and cited to be caused by misreadings / misinterpretations in the collected data. It was deduced that the abundance of liquid was caused by the recovery of frac fluid collected from adjacent wells. These findings are still a possible concern moving forward, as the reduction of collection efficiency, paired with the concentrated nature of VII’s operations, could have serious financial implications on the company’s performance.

Carbon Tax

In October of 2016, the Canadian Liberal government announced a proposed national “floor price” and agenda for national carbon taxes. These adjustments would implement a tax of $10/ tonne in 2018 and increase at a rate of $10/ tonne/year until it reaches $50 in 2022. As both a large producer of carbon creation products, and a significant producer of carbon through operations, we see these changes adversely affecting VII if implemented without counteracting adjustments.

EXHIBIT 13

Projected CAD Carbon Tax Rate ($/ tonne)

Source: The Globe and Mail
Comparable Companies Analysis

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Market Cap ($MM)</th>
<th>Enterprise Value ($MM)</th>
<th>EV/EBITDA</th>
<th>EV/DACF</th>
<th>P/NAV</th>
<th>Production Growth (%)</th>
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</thead>
<tbody>
<tr>
<td>Encana Corporation</td>
<td>$12,804</td>
<td>$17,735</td>
<td>14.4x</td>
<td>11.4</td>
<td>500%</td>
<td>555%</td>
</tr>
<tr>
<td>ARC Resources Ltd.</td>
<td>$7,981</td>
<td>$8,927</td>
<td>14.8x</td>
<td>11.1</td>
<td>547%</td>
<td>2016E 183%</td>
</tr>
<tr>
<td>Birchcliff Energy Ltd.</td>
<td>$2,217</td>
<td>$3,017</td>
<td>17.3x</td>
<td>8.4</td>
<td>183%</td>
<td>412%</td>
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<tr>
<td>Tourmaline Oil Corp.</td>
<td>$7,970</td>
<td>$9,327</td>
<td>11.7x</td>
<td>9.2</td>
<td>155%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Mean | $7,743 | $9,751 | 14.5x | 8.1x | 14.0x | 10.0x | 346% | 192% |
Median | $7,975 | $9,127 | 14.6x | 7.5x | 13.7x | 10.2x | 342% | 146% |

Seven Generations Energy Ltd. | $9,878 | $11,275 | 13.0x | 7.7x | 13.4x | 9.5x | 555% | 227% |

The first valuation technique that we employed in our analysis was to use trading comparables. As you can see in the above table, VII trades at a discount on an EV/EBITDA and EV/DACF basis despite exhibiting superior production growth. At first glance, the company appears to trade at a premium P/NAV valuation, but this figure is skewed because VII has not been able to book the full value of its reserves due to a lack of midstream infrastructure. Using the peer median 2017 EV/DACF multiple, we arrived at a price target of $36.34.

Net Asset Value Analysis

To complement our public market comparables, we built a Net Asset Value model to value the company’s existing reserve base. Assumptions surrounding future commodity prices, forward multiples, and operating expenses were sourced from a variety of sources including equity research, management commentary and futures curves. Based on our projections, we arrived at an implied share price of $33.44, representing a 17.17% premium to its current market price.

Comparables Valuation

- 2017E DACF: $1,386,888.00
- Median EV/DACF: 10.2x
- Implied EV: $14,076.91
- Less Net Debt: ($821.14)
- Implied Equity Value: $13,255.77
- FDSO: 364.76
- Implied Share Price: $36.34

NAV Summary

- Current Share Price: $28.54
- PV of AT Cash Flows: $5,608.44
- Plus: Value of Undeveloped Assets: $515.93
- Less: Net Debt: ($821.14)
- Implied Net Asset Value: $5,303.23
- FDSO: 364.76
- Implied NAV/Share: $14.54
- P/NAV: 2.3x
- Implied Share Price: $33.44

VII Share Price Sensitivity

<table>
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<tr>
<th>Discount Rate</th>
<th>7.0%</th>
<th>8.0%</th>
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<th>10.0%</th>
<th>11.0%</th>
<th>12.0%</th>
<th>13.0%</th>
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<tr>
<td>P/NAV</td>
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<tr>
<td>2.60x</td>
<td>$43.73</td>
<td>$41.61</td>
<td>$39.64</td>
<td>$37.80</td>
<td>$36.08</td>
<td>$34.48</td>
<td>$32.97</td>
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<td>2.45x</td>
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<td>2.30x</td>
<td>38.68</td>
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<td>31.92</td>
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<td>32.78</td>
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<td>1.85x</td>
<td>31.11</td>
<td>29.61</td>
<td>28.21</td>
<td>26.90</td>
<td>25.67</td>
<td>24.53</td>
<td>23.46</td>
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Sources: Capital IQ, Company Reports, RBC, Scotiabank, Paradigm, Thomson One, Bloomberg

November 7, 2016

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Valuation Continued

In order to arrive at our conclusive target price, we assigned equal weightings to both our comparables and NAV valuations. This target price represents a 22.25% premium to the company’s current share price. As you can see, this valuation is at the low end of analyst expectations. This is likely due to the conservative nature of estimates used in constructing our NAV model and signals the potential for upside beyond our current forecasts.

Overall, we are very comfortable with VII’s current market valuation, and believe that we could see significant returns in the next 12 months.

EXHIBIT 15

PRICE TARGET CALCULATION BREAK DOWN

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<th>Price Target Calculation</th>
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<tr>
<td><strong>Net Asset Value</strong></td>
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<td>Total NAV</td>
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<td>NAV/Share</td>
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<td><strong>Target Share Price</strong></td>
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<td>Current Share Price</td>
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<tr>
<td><strong>Implied Return</strong></td>
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**Comparables Analysis**

- **2017E DACF** $1,386.89
- **Median EV/DACF** 10.15
- **Implied EV** $14,076.91
- **Less Net Debt** ($821.14)
- **Implied Equity Value** $13,255.77
- **FDSO** $364.76

- **Target Share Price** $36.34
- **Current Share Price** $28.54
- **Implied Return** 27.33%

**NAV Weighting** 50%
**Comparables Weighting** 50%

**Blended Target Share Price** $34.89
**Implied Return** 22.25%

Sources: Company Reports, Capital IQ

EXHIBIT 14

COMPARING ANALYST EXPECTATIONS

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<tr>
<td><strong>QUIC</strong></td>
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<td>$36.00</td>
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<tr>
<td>RBC</td>
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<td>$37.00</td>
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<td>TD</td>
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<td>Raymond James</td>
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References

1. Company Reports
2. Sentieo
3. Cormark Securities
4. Scotiabank
5. RBC Capital Markets
6. BMO Capital Markets
7. S&P Capital IQ
8. Oxford University
9. Alberta Energy Regulator
10. Paradigm Capital