# 2017 Bank Study Project
# Class of 2019

# INTERMEDIATE CREDIT ANALYSIS
## Ken Cyree

**(REVISED 6/13/17 on Page 2 changed $10,000 to $50,000)**

**NOTES:**
1. Please use 8 l/2" x 11" paper (or paper folded to that size).
2. Attach the **Freshman Cover Sheet – Class of 2019** from http://www.gsblsu.org/students-3/ as the first page of your project.
3. Please staple your project or use a binder clip. **DO NOT** use paper clips or any kind of folder or binder.

**Complete and mail by <u>September 15, 2017</u>**

**Graduate School of Banking at LSU**
4273 Highland Road
Baton Rouge, LA 70808-4541
225-766-8595

Intermediate Credit Analysis
2017
Bank Study Problem

# T & M Energy Inc.

To provide energy resources for business, home, and travel, Doug Travers and William McGill have developed several versatile electric power producing products that depend on either cold fusion or hydrogen fuel cells. The use of these energy sources shortens the time and cost required for recharging batteries for operating automobiles, trucks, or equipment.

Because the products produced by Travers and McGill are closely associated with work of Nikola Tesla, T & M Energy is located in Colorado Springs, Colorado. Their loan officer, Carol Devon with Indie Peak National Bank, met with the partners in September 2017 to discuss their plans for the coming year.

On December 31, 2017, T & M's total long term debt will be $5,020,653. That includes the current portion of long-term debt that will be repaid within the following twelve months. Travers and McGill are requesting an additional amount for the purchase of a facility for research and production. Construction is already under way and will be completed, ready of occupancy, on January 1, 2018.

Until long-term financing is arranged, construction of the new plant at a cost of $2,200,000 will be paid by private funds. Travers and McGill are asking Carol Devon to approve bank financing for 75 percent of the cost of the new facility, and for the two long-term loans to be combined into a single loan to be repaid in equal monthly payments combining interest and principal over the ten years January 1, 2018, to December 31, 2027. Independent appraisals arranged by Indie Peak support the valuation shown by T& M.

Travers and McGill also request that the bank provide short-term funds through a continuation of the line-of-credit to cover the need for occasional cash shortages. A cash budget and forecasts of other financial statements for the forecast year, 2018, are presented to Carol Devon for her review. Indie Peak Bank manages the T & M Energy cash balance at the end of each month by investing any surplus over $50,000 in short-term Treasury securities, and by covering any cash deficit with funds from the line-of-credit and by selling Treasury securities.

A financial simulation program was written for the bank by analysts at T & M Energy. Once all of the input numbers are filled in on the background page (Back) the predicted results for the forecast year will be shown on several spreadsheets including the balance sheet, income statement, ratio analysis, cash flow statement, and 5-year histories for the balance sheet and income statement.

The program is a simulation because one or more input values can be changed and all of the financial results are recalculated automatically. There is one requirement for balancing the spreadsheets, and that is copying the computed income tax in an adjoining cell – then repeating this copying procedure several times until the two tax numbers are equal. The computed tax is shown in cell H4 and this number is copied in cell H5 three to five times as needed. Each time the H4 number is entered in H5, the two will be closer. When they are equal his means that the balance sheet will be in balance.

The number entered in H5 goes to the cash budget, where it is divided into four quarterly income tax payments. By entering the H4 number into H5 several times you are gradually approaching a balanced spreadsheet in which all of the results will be correct.

The simulation has the advantage of being able to compute results for what-if questions – changing the original input values to see new results. Of course, this can also be a disadvantage since even incorrect input numbers can result in a balanced program and the user would not realize the error. Therefore, one of the numbers given with beginning data will be the correct computed tax number

If the computed tax number is different from the given correct number, some error or errors exist in the input values on the Back spreadsheet. Look for the problem and if it cannot be found, better e-mail Paul at [cretien619@aol.com](mailto:cretien619@aol.com) for assistance in locating the problem.

Travers and McGill believe that the company's sales will grow at the rate of 8 percent in 2018 and also in 2019. Cash sales are expected to be 8 percent of total sales, while 40 percent of sales will be paid by bank credit cards and 52 percent by charges to customer accounts.

For purposes of the cash budget, the collection schedule for charges to customer accounts includes 45 percent collected one month following sales, 35 percent n two months, 18 percent in the third month, and the remaining 2 percent written off as a credit loss.

The company's cost of goods sold as a percent of sales is expected to be 66.50 percent in each of the two years, 2018 and2019, and sales commissions will be 6 percent of sales.

Several expenses are shown by Travers and McGill as totals for the year, although on the cash budget they will be divided into twelve monthly payments. These are salary expense $630,000; advertising expense $230,000; lease expense $280,000; and employee services and training $150,000.

Another expense, maintenance & other, includes equipment and services that allow the company to delay payment. Before being paid, the total charges are shown on the balance sheet as accrued expenses. During 2018, T & M will pay out $155,000 for maintenance & other expenses divided into twelve monthly payments, although the expense for the year will be only $95,000. The difference of $60,000 will be deducted from accrued expenses.

On the cash budget, a bank card terminal fee of $10 per $100,000 in bank credit card sales for the year. The total terminal fee expense is shown in twelve equal monthly payments. In each month on the cash budget, a dollar amount equal to 2.5 percent of bank card credit sales is paid to the bank as the bank credit card fee. There is a credit loss equal to 2 percent of bank credit card sales at the end of three months following sales.

T & M Energy Inc. has 200,000 shares of common stock outstanding on December 31, 2017. At the par value of $1.00 per share, the total par value is $200,000. Travers and McGill want to increase the equity capital in the company and are planning to issue 5,000 new shares on January 1, 2018. The new shares will also have a par value of $1.00, and are expected to be sold for $25.00 per chare. The difference between the stock purchase price and par value will increase the company's capital surplus.

Several interest rates that will apply to T & M Energy for the forecast year include short-term borrowing on the line of credit 5.00 percent, short-term investments in Treasury securities 0.50 percent, and long-term borrowing on the new term loan 7.50 percent.

T & M Energy Inc. equity capital includes retained earnings – the cumulative difference between net after-tax income and dividends. Travers and McGill believe that future growth will be improved by regular additions to their company's equity base by retaining earnings and issuing new stock to assist with expanding fixed assets. A dividend of $1.25 per share will be paid in 2018.

Input data from the information above should be entered as indicated in the shaded or colored cells on the Back spreadsheet. Interest rates and percentages are entered as decimal fractions such as 0.0585 for 5.85 percent.

Exhibits shown on the Back spreadsheet are

1. Repayment schedule for the new term loan Row 68

` II. Repayment schedule for the previous term loan Row 104

III. Depreciation and fixed assets Row 139

IV. Monthly sales indexes as proportions of 12. Row 160

To check for input accuracy, the correct tax is $225,629.37 after the two tax numbers in cells H4 and H5 are equal.

Because some banks are reluctant to combine the two long-term loans into a single loan, the T & M analysts are creating a new simulation that allows the previous term loan to be carried forward so that both term loans will co-exist. The new program is called Alternative B and can be provided by Paul on request. Cretien619@aol.com

Questions for discussion for the credit request -- a new term loan that combines the previous long-term debt with new funding for a fixed-asset purchase and renewal of the line-of-credit that includes cash management by Indie Bank.

1. Charts under the cash budget show monthly cash flows and the borrowing or repayment of funds from the line-of-credit. Discuss the application and use of short-term borrowing for T & M Energy Inc.

2. T & M Energy finances its growth in part by bank debt. Do you believe their financing is appropriate? Why or why not?

3. Long-term capital sources may be financing short-term uses of funds for T & M Energy Inc. Is this source of funds an appropriate means of funding for current assets? Explain why or why not.

4. Do the earnings of T & M Energy Inc. cover financing costs to an extent that indicates that the requested credits have acceptable risk? Why or why not?

5. Are depreciation funds an appropriate source of funds for repayment of long-term debt? Why or why not?

6. In analyzing the credit requests by T & M Energy Inc., would you recommend approval of the requests? Why or why not?

7. Are there additional questions that might be answered by what-if analysis – changing one or more input values and rebalancing the simulation to find the answers? Try two what-if questions and show the results.

For assistance on this project, or questions on the simulation program, please e-mail Paul Cretien. Cretien619@aol.com