

Local Power



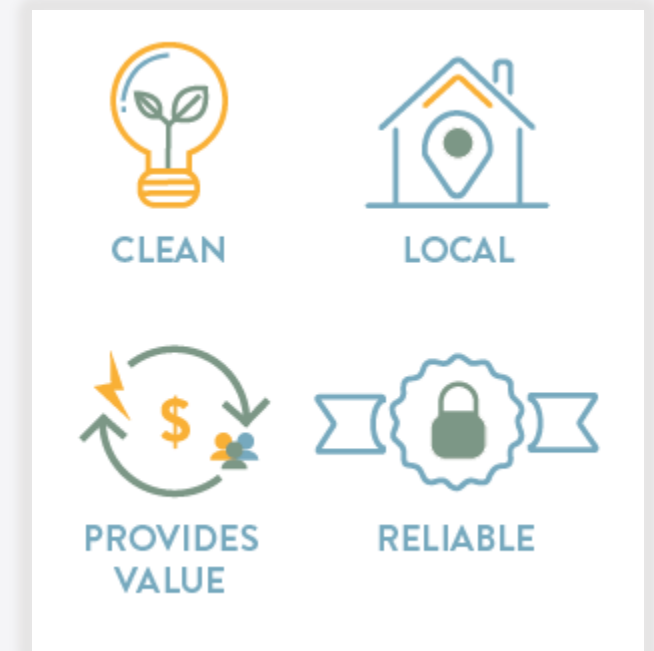
Quarterly Update

West Boulder Senior Center

Dec. 13, 2018

Agenda

- Welcome
- Project Update
 - PUC Filings and Timeline
 - Acquisition (or condemnation, if necessary)
- Financial Analysis
 - Overview
 - Power Supply
 - Results
- Q&A
- Financial Forecast Tool Demonstration



Update on PUC Filings

Oct. 26

- List of Assets
- Permanent Easements
- Xcel Reimbursement

Dec. 16

- Deadline for parties to request hearing

Nov. 16

- Easement Sharing Agreement

Jan. 2019

- PUC ruling on agreements

Acquisition – Process to Determine Cost of Assets



Acquisition – Process to Determine Cost of Assets

- Authorized by City Council on Dec. 4, including condemnation if necessary
- This month plan to send Notice of Intent to Acquire to initiate good faith negotiations
- If negotiations fail or are futile, file Condemnation Petition with District Court
- Anticipate valuation trial Q1 2020
- Voters determine whether to proceed
- If voters approve, city purchases assets after separation construction

Financial Analysis: Financial Forecast Tool

What does the Financial Forecast Tool do?

Assess
financial
feasibility

Test high-
impact
variables

Allow easy
updates with
new data

Evaluate key
financial
metrics

*Posted on city's website for public to evaluate and modify:
<https://bouldercolorado.gov/energy-future/financial-forecasting-tool>*

Financial Analysis: Three Questions

1. Is starting up a local electric utility financially feasible?
2. Is running a local electric utility financially feasible in the early years?
3. Is it feasible in the medium-term?

Financial Analysis: Testing Feasibility

A local electric utility can meet the following City Charter metrics

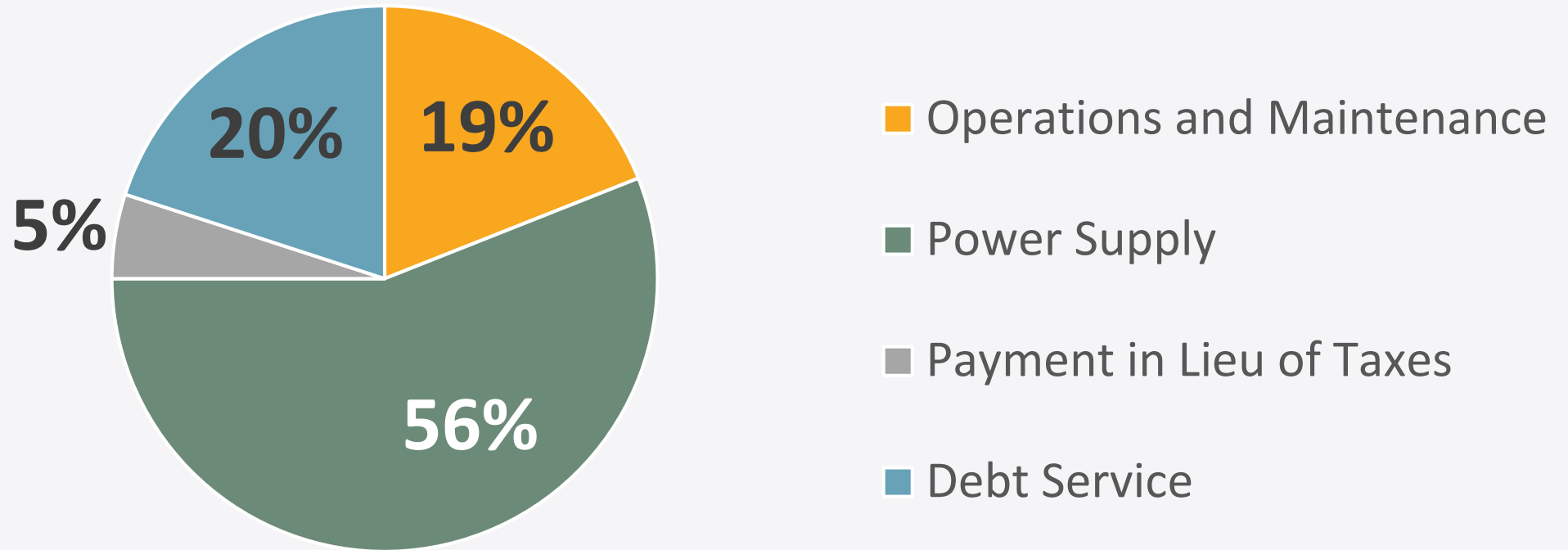
RATES: Charge rates that do not exceed those rates charged by Xcel Energy at the time of acquisition

DEBT SERVICE COVERAGE: Rates charged will produce revenues sufficient to pay for operating expenses and debt payments, plus an amount equal to 25% of the debt payments

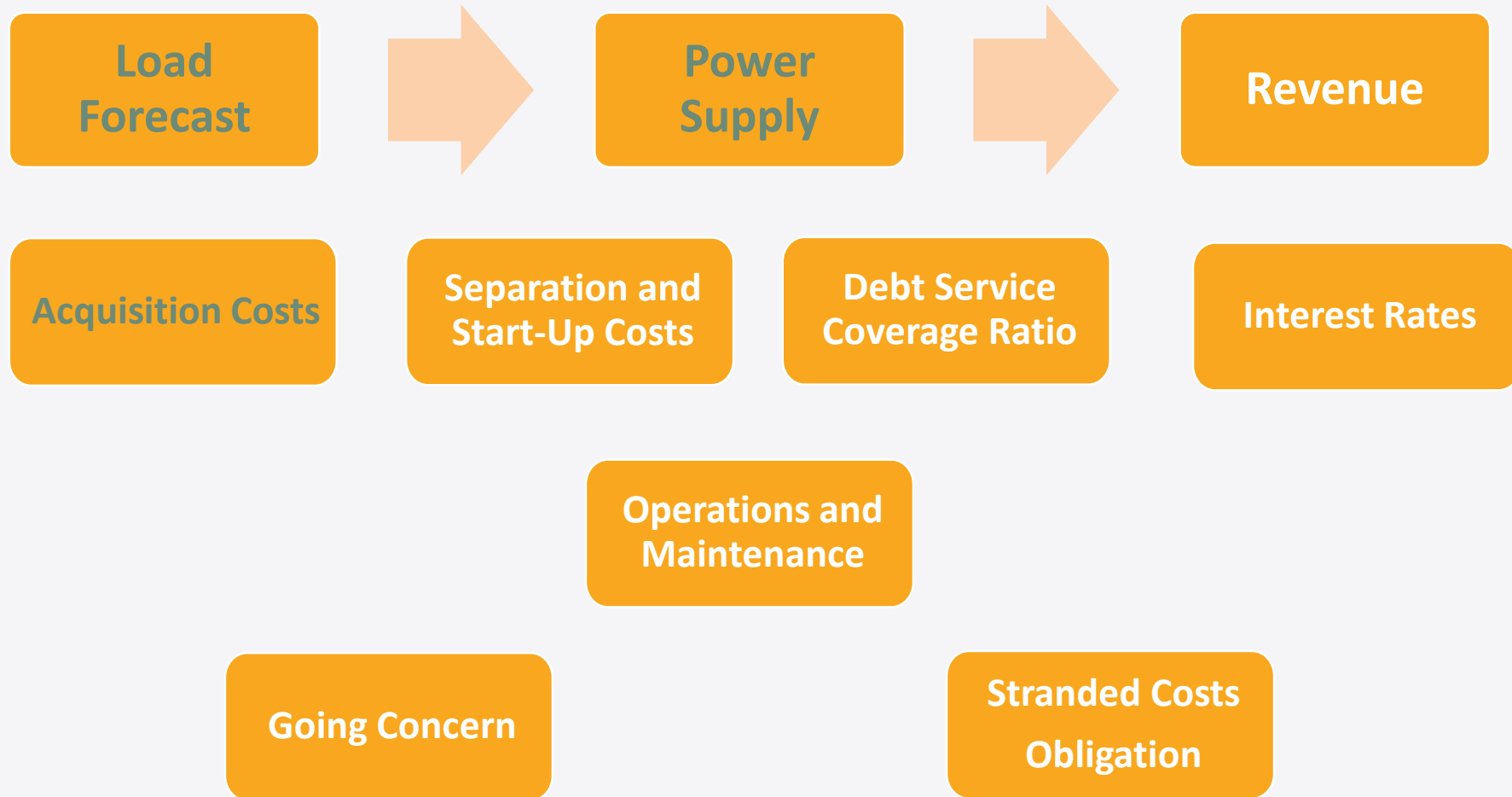
EMISSONS AND RENEWABLE ENERGY: Reduce greenhouse gas emissions and other pollutants and increase renewable energy

Financial Analysis: Breakdown of Costs

Proportional Costs (10-Year Average)



Financial Analysis: High-Impact Variables



Stranded Cost Obligation

Stranded cost includes costs related only to generation that cannot be resold (by Xcel or the city) to other customers.

Xcel has a duty to mitigate a stranded cost claim

- Reselling capacity and energy to existing or new customers

Boulder has options to mitigate stranded cost obligation

- Use alternate transmission system
- Continue to purchase some or all electricity from Xcel for a period of time
- Buy less expensive wholesale power and use savings to pay potential stranded cost obligation.

Going Concern

Definition

- Recovery for the loss of business the property owner may incur because of acquisition.

When does this apply?

- During the condemnation case, the claim is made to increase the amount of the final valuation award as a separate line item from the amount for existing assets.

Sensitivity Tests

	Acquisition Costs	Interest Rates (Tax Exempt / Taxable)	Debt Service Coverage Ratio	Annual Operations & Maintenance	Load (Forecast) Growth
Low	\$150M	5.0 / 6.0	1.25	-10%	0%
Medium	\$150M	6.0 / 7.0	1.50	City Budget	1.0%
High	\$214M	7.0 / 8.0	1.75	+10%	2.0%
Source	City Charter / Xcel Energy	Financial Advisor	Financial Advisor	APPA / City Research	Xcel Energy Analysis / City Analysis

Revenue
(Xcel Rates):
Flat, 2%, 3%

Power Supply:
4 portfolios

Separation and
Start-up costs

Stranded
Costs/other
unanticipated
costs

Power Supply

How much will it cost to purchase energy to sell to customers?

- Extensive analysis of the state of the power market
 - Meeting with independent power producers
 - Intervention in Electric Resource Plan
 - Monitoring utility power supply solicitations and industry reports
 - Request for indicative pricing

Power Supply-Request for Indicative Pricing

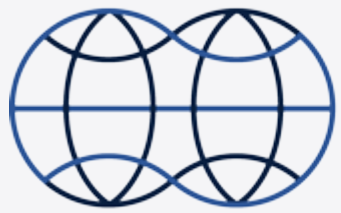
What is an RFIP?

Intended to address specific questions:

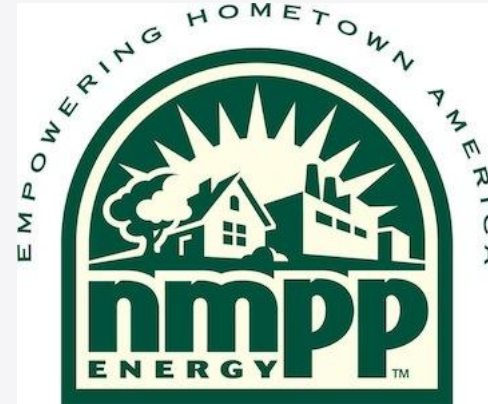
- 1. Are there power providers who are willing/able to serve Boulder's energy needs?*
- 2. Can those power providers meet Boulder's goals related to renewables?*
- 3. Are the proposed prices consistent with recent projects/bids?*

...Yes, Yes and yes

Power Supply-Request for Indicative Pricing



**GUZMAN
ENERGY**



CapitalDynamics 

lightsource bp



Invenergy



AbleGrid

Power Supply-Request for Indicative Pricing

- Bids received for wind, solar, storage, natural gas
- Bids included combination of energy, capacity and ancillary services
- Prices competitive with recent bids across industry, including PSCo Electric Resource Plan

Why does this matter?

Power Supply

Power Supply Scenario	10-year Average Energy + Capacity Cost (\$/MWh)	% Renewables (2024)	Average Annual Cost for Power Supply
100% Xcel Energy	\$68.28	53%	\$123.6M
3-year Xcel then High Renewables	\$51.40	53%	\$94.1M
Day 1 High Renewables	\$45.54	89%	\$83.9M
100% Renewable Electricity	\$51.00	100%	\$93.3M

Financial Analysis: Measuring Results

Key Definitions

Debt Service Coverage Ratio (DSCR): the ratio of the net operating revenues (after expenses) to debt payments (principal and interest).

Net Present Value (NPV): the value in the present of a sum of money

Revenue
Requirement /
Earnings Test

- Uses Xcel “all-in” rates forecasted for 10 years
- Revenue collection compared to revenue requirement
- Flags years where extra revenue is required to meet target DSCR level

Cash Flow
Analysis

- Uses rate forecast, assumes no additional revenues collected
 - Additional amount collected for debt coverage included in available cash
- Cash used to build reserves, fund capital projects, etc.

Financial Analysis: Scenarios and Results

Scenario	1	2	3	4
Load Growth	Medium	Low (Flat Growth)	Medium	Medium
Power Supply	High Renewables	High Renewables	High Renewables	Gradual Departure
Acquisition	\$150M	\$150M	\$214M	\$150M

Results – Revenue Requirements / Earnings Test	Scenario			
	1	2	3	4
NPV of Savings / (Losses) over 5 years	\$37.9M	\$10.2M	\$11.5M	(\$47.3M)
NPV of Savings / (Losses) over 10 years	\$134.2M	\$59.9M	\$80.9M	\$37.7M
Results – Cash Flow Analysis				
NPV of Savings / (Losses) over 5 years	\$104.9M	\$76.9M	\$92.2M	\$20.9M
NPV of Savings / (Losses) over 10 years	\$257.5M	\$182.7M	\$228.7M	\$163.1M

Summary

After updating the high-impact variables, the tool demonstrates that operating a local electric utility shows promising financial feasibility

Three scenarios analyzed result in long-term cost savings and increased renewables for customers. **Savings could be used to build reserves, mitigate unanticipated costs, increase innovation, accelerate undergrounding, lower rates, etc.**

The most expensive of the four scenarios would occur if the municipal electric utility bought 100% of its power from Xcel Energy for 10 years.

This scenario would also not achieve Climate Commitment targets of 100% renewable electricity and 100 MW of local generation by 2030.

Next Steps

- As numbers such as acquisition cost, separation engineering and start-up costs are refined; staff will update the assumptions in the Financial Forecast Tool.
- Significant updates are expected 3rd quarter 2019 and 2nd quarter 2020.

Questions?

Thank you for attending this evening!

<https://bouldercolorado.gov/local-power>

<https://bouldercolorado.gov/energy-future/financial-forecasting-tool>

Financial Forecast Tool Demonstration

Get out your laptops!

WiFi: ConnectBoulder
(no password required)

Local Power 

LOCAL ELECTRIC UTILITY FINANCIAL FORECAST TOOL

User Manual and Documentation

December 2018



Stranded Cost Calculation



- Revenue Stream Estimate: Average annual revenues for three years prior to departure less transmission-related revenues
- Competitive Market Value Estimate: amount utility can expect to receive by selling released capacity and associated energy
- Length of Obligation: period of time utility could have reasonably expected to continue to serve Boulder