



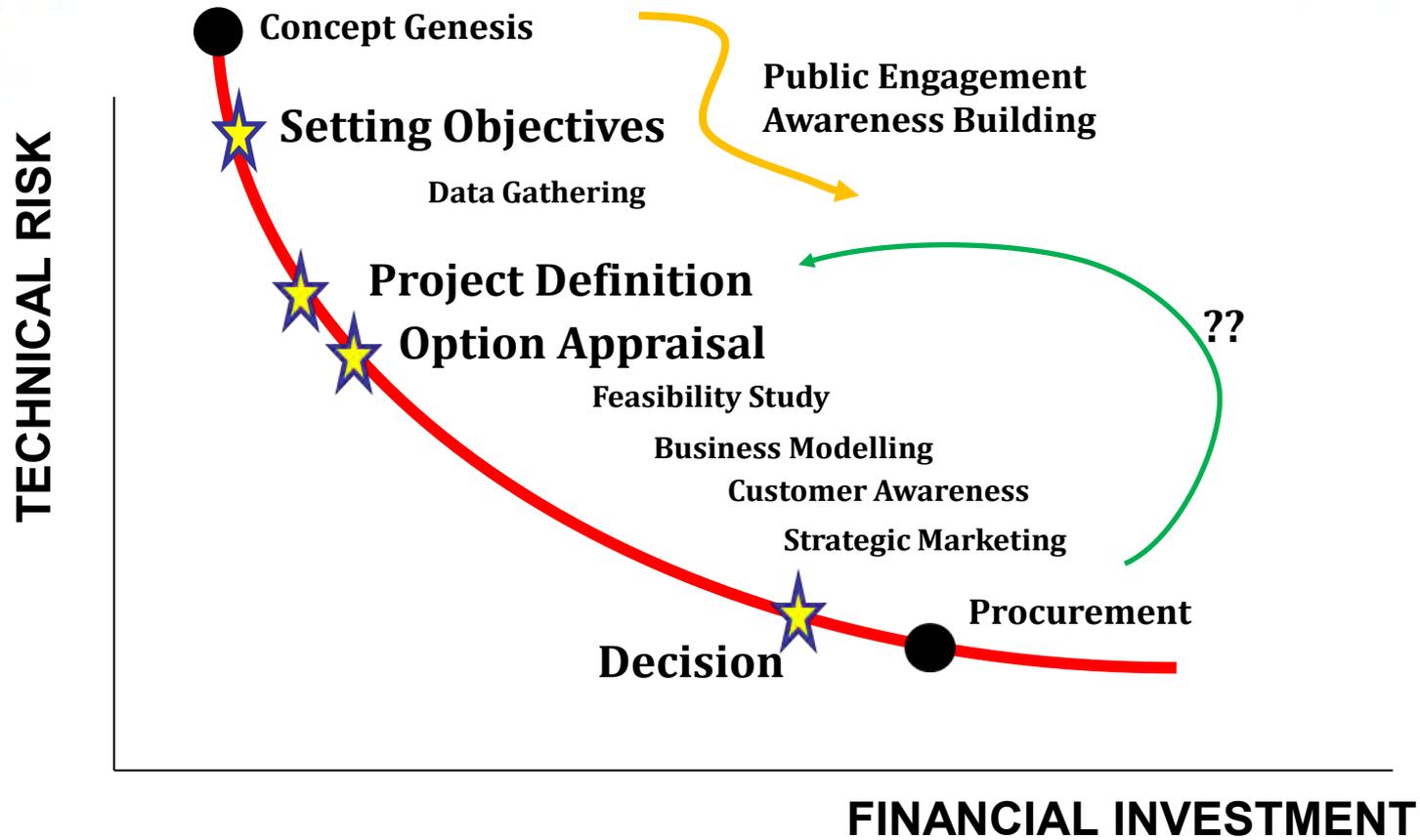
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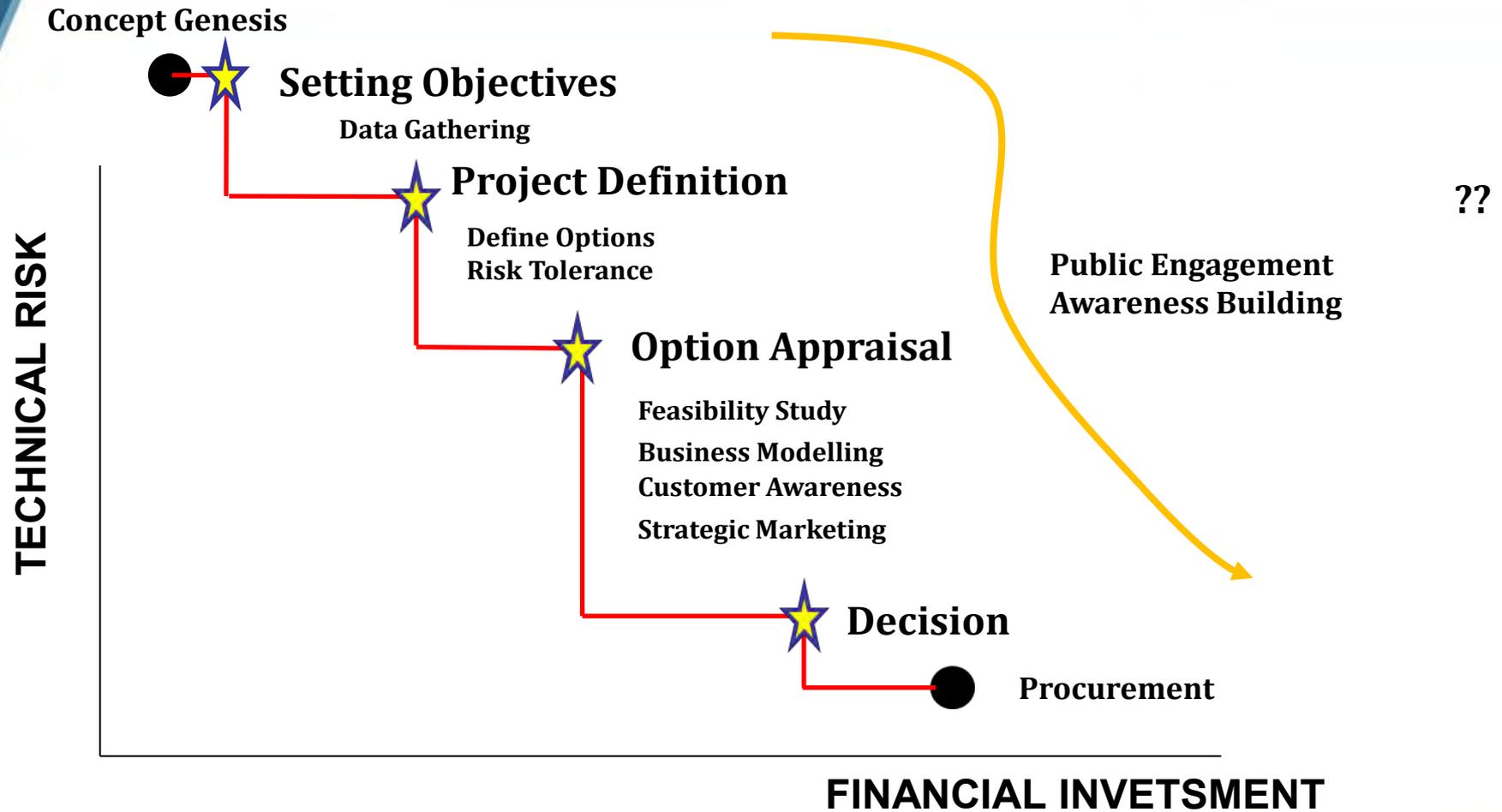
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District Energy Tools & Aids

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THE 4 KEY DECISION POINTS

SETTING OBJECTIVES

What is expected of the initiative?
How best does the initiative fit within community goals?

PROJECT DEFINITION

What is the operating framework for the initiative?
How do you know if it is successful?

OPTION ASSESSMENT

What options are available?
How do they fulfill the community's needs?

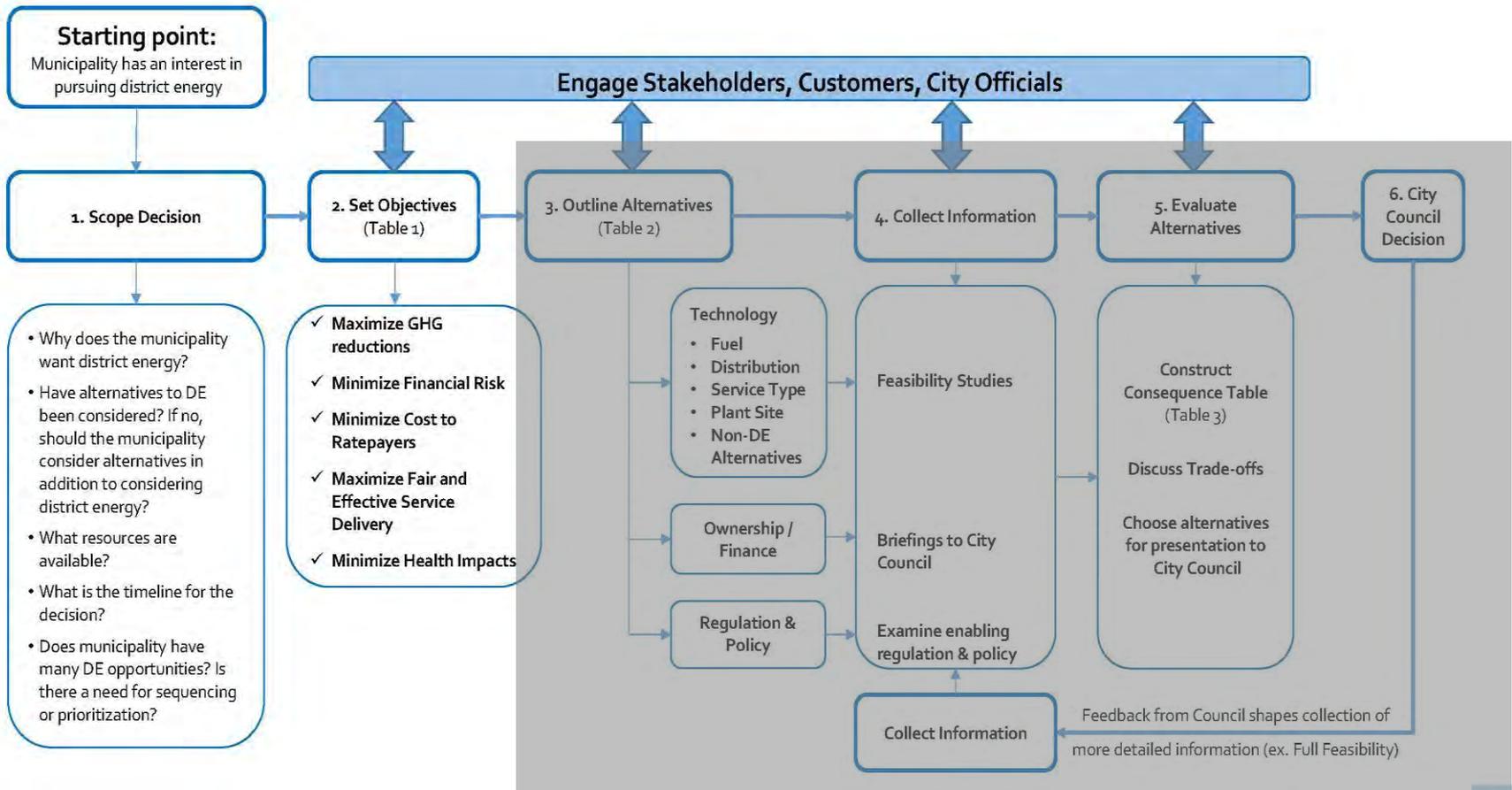
DECISION MAKING

Which option is best?



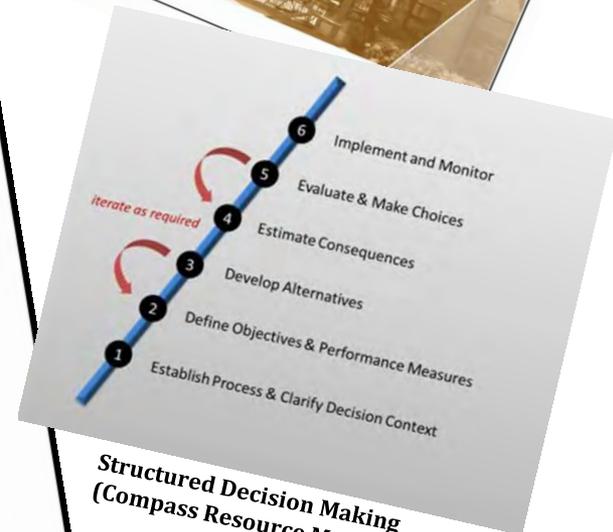
SETTING OBJECTIVES

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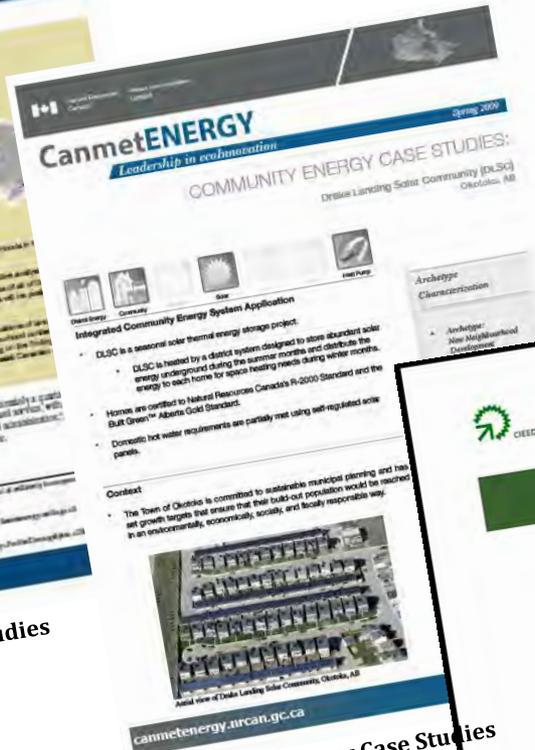
SETTING OBJECTIVES - TOOLS AWARENESS BUILDING



Structured Decision Making
(Compass Resource Management)



Urban Archetypes Case Studies



Community Energy Case Studies



District Energy Inventory



SETTING OBJECTIVES – TOOLS COMMUNITY AWARENESS BUILDING

Natural Resources Canada

Community Evaluation Criteria – Do we move forward?

The criteria outlined below allow a community to assess the potential for developing a district energy system.

Step 1: For each criterion score the project between 0 and 5.
Step 2: Using the scoresheet, determine the overall score of the proposal.
Step 3: Proceed or otherwise to a feasibility assessment of the proposed project.

Community Profile

1 Is energy planning part of the community development process? → 5

0 Elected Officials have no interest in, or no awareness of energy matters within the community. No concerns are expressed as regards energy security or future renewable energy projects have been poorly received or rejected.

Elected Officials are well aware of energy security, have discussed the issue and have included energy efficiency / energy conservation components within official documents and bylaws. The community has a history of, or is supportive of local generation or the inclusion of renewable energy.

Community Self Assessment

Canada
CanmetENERGY
Leadership in eInnovation

STAKEHOLDER engagement GUIDE

DISTRICT ENERGY SYSTEMS

Canada

Stakeholder Engagement Plan

DISTRICT ENERGY biomass
Education Module

DISTRICT ENERGY For Planners

Natural Resources Canada / Ressources naturelles Canada

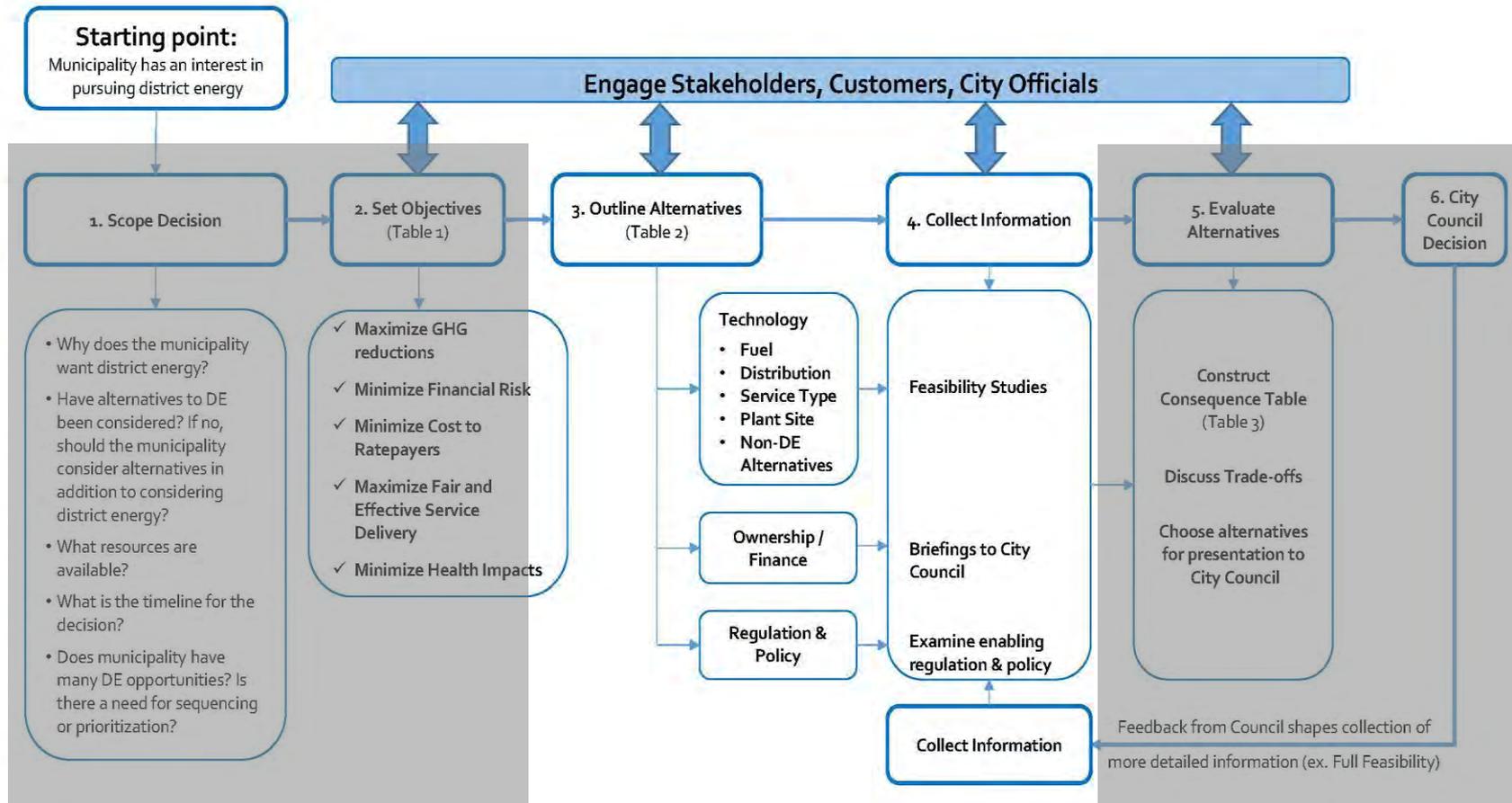
Learning Modules

IEA DHC/CHP
International Energy Agency

Implementing Agreement on District Heating and Cooling including Combined Heat and Power

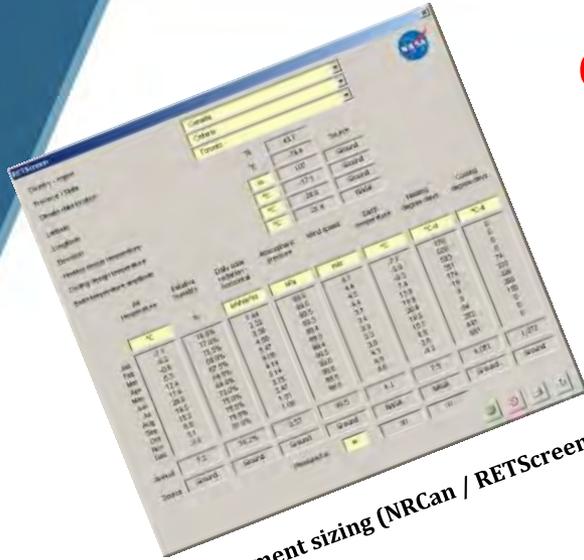


OPTION ASSESSMENT

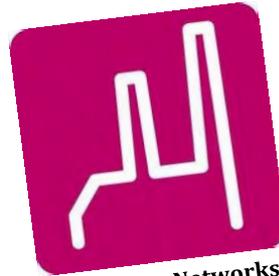




OPTION ASSESSMENT TOOLS



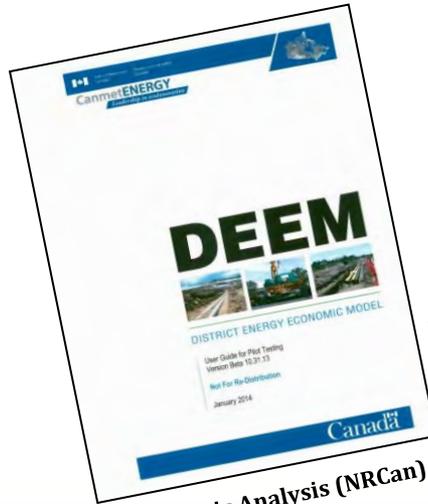
Equipment sizing (NRCan / RETScreen)



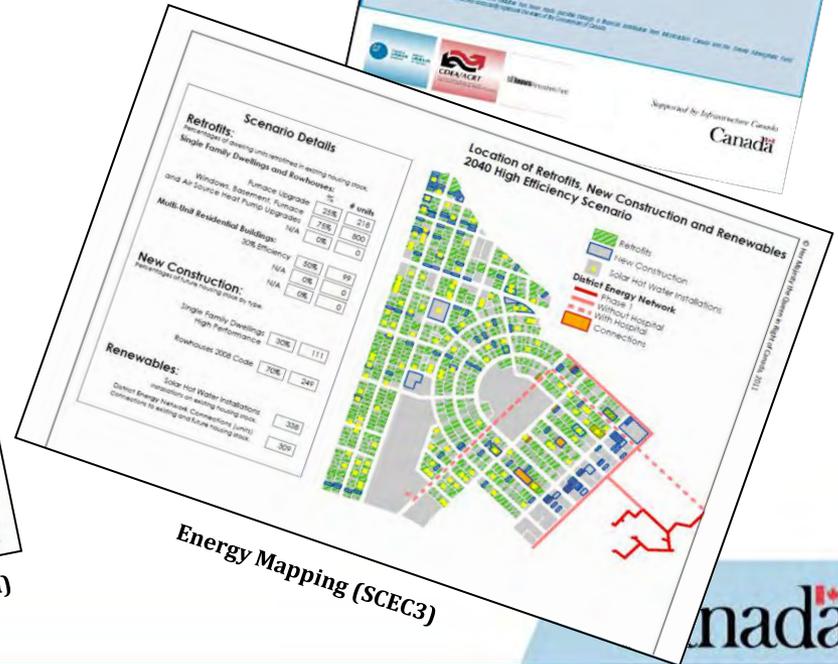
Piping Networks



Building Energy Analysis (NRCan)



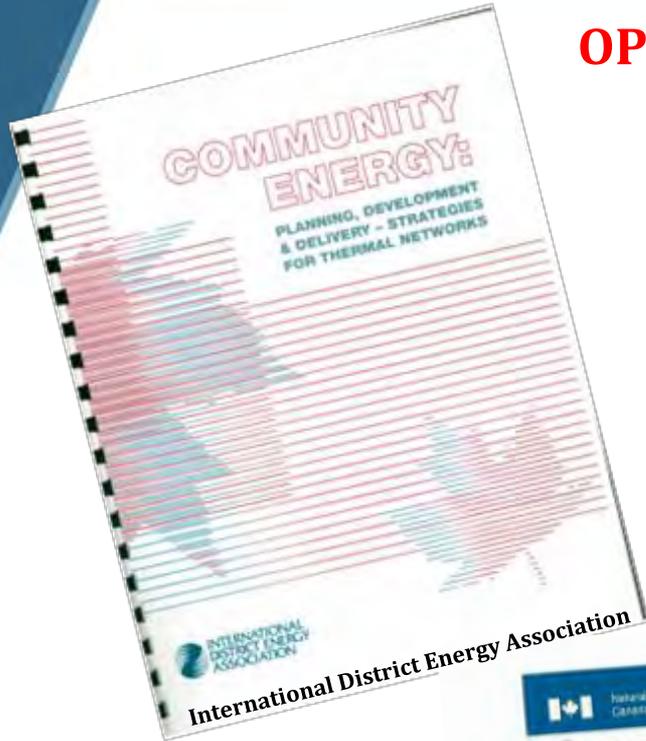
Economic Analysis (NRCan)



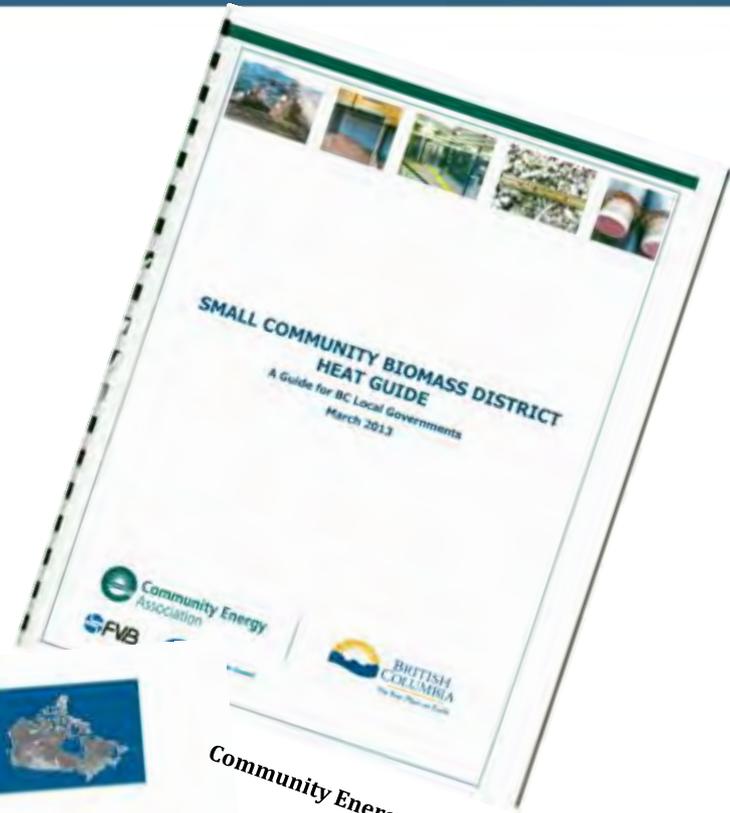
Energy Mapping (SCEC3)



OPTION ASSESSMENT GUIDES



International District Energy Association



Community Energy Association



Natural Resources Canada



OPTION ASSESSMENT ASSISTANCE



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QUEST

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Systems of Tomorrow

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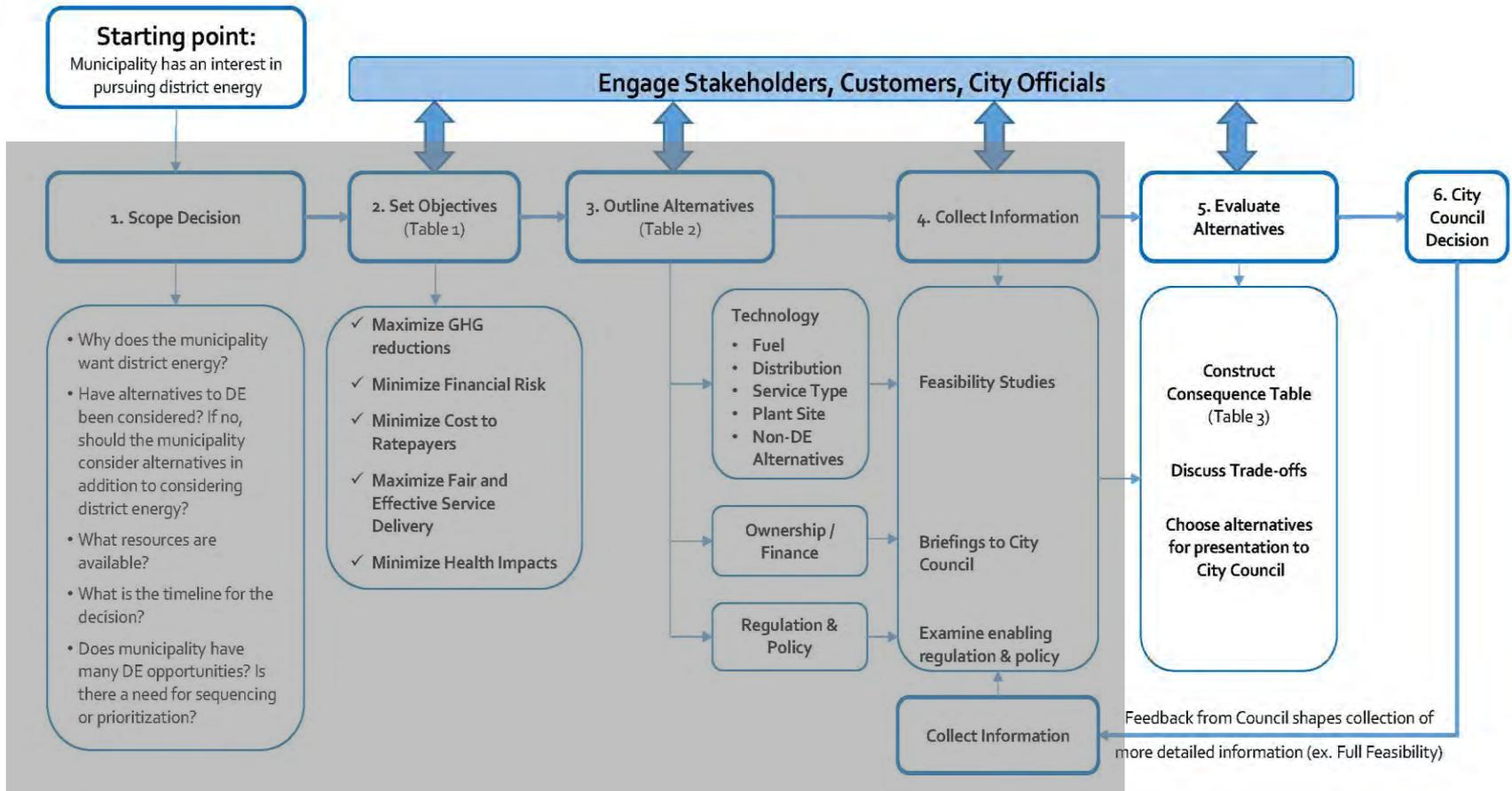


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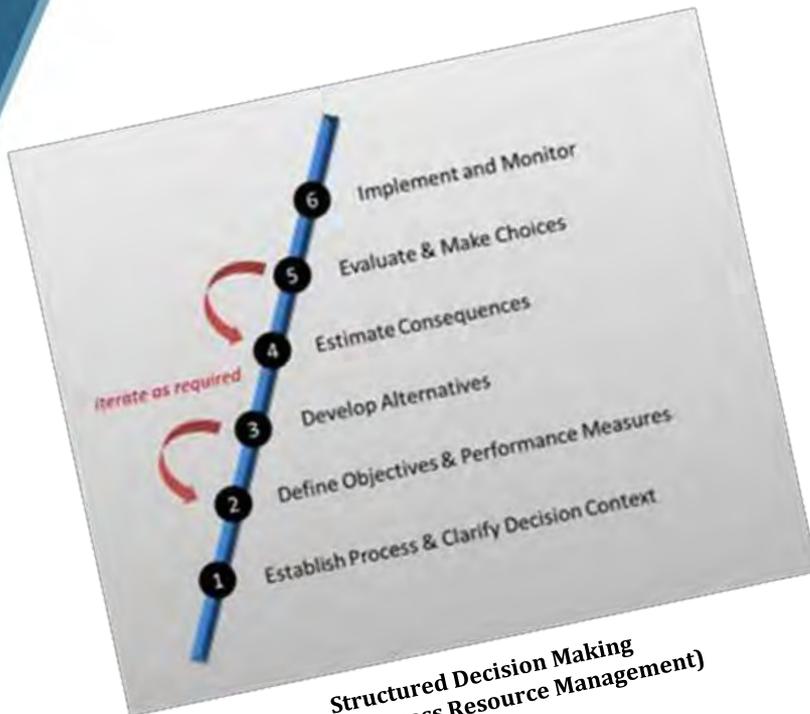


DECISION MAKING





DECISION MAKING



**Structured Decision Making
(Compass Resource Management)**

By clearly knowing what was expected, what is the best option for the community?

Decision is based on not only the economic but also the environmental & social benefits of each option.



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Thank you
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