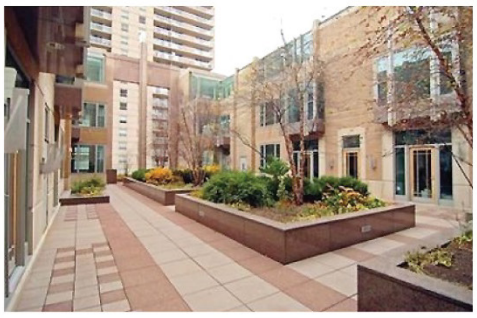
Natural Resources Canada
Ressources naturelles Canada



STAKEHOLDER ENGAGEMENT GUIDE

with WORKSHEETS

DISTRICT **ENERGY** SYSTEMS

CanmetENERGY
Leadership in ecoInnovation
Canada

Acknowledgement:

This Engagement Guide was extracted from the report, Stakeholder Communications and Engagement Guide for District Energy Systems, developed by Sustainable Cities International for Natural Resources Canada's CanmetENERGY Communities group, 2014.

Neither Natural Resources Canada nor any of its employees makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness or usefulness of its contents. Reference in the report to any specific commercial product, process, service or organization does not necessarily constitute or imply endorsement, recommendation or favouring by Natural Resources Canada. The views and opinions of authors expressed in this report do not necessarily state or reflect those of Natural Resources Canada.

Funding for this work was provided by Natural Resources Canada through the Program of Energy Research and Development.

Ressources naturelles Canada et aucun de ses employés ne font aucune garantie, formelle ou tacite, et n'assument aucune responsabilité légale ou autre à l'égard de l'exactitude, de l'exhaustivité ou de l'utilité du contenu du rapport. Toute référence dans le rapport à quelque produit, processus, service ou organisation que ce soit ne constitue pas nécessairement une approbation, une recommandation ou une préférence de la part de Ressources naturelles Canada. Les points de vue et les opinions exprimés par les auteurs dans ce rapport ne sont pas et ne reflètent pas nécessairement ceux de Ressources naturelles Canada.

Ces travaux ont été réalisés grâce au financement fourni par Ressources naturelles Canada dans le cadre du Programme de recherche et de développement énergétiques.

Cat. No. M154-80/2014E-PDF

ISBN or ISSN 978-1-100-24705-2

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Natural Resources, 2014

TABLE OF CONTENTS

INTRODUCTION 5

A: RATIONALE FOR CREATING AN EXTERNAL PUBLIC ENGAGEMENT STRATEGY 5

B: STEPS IN PLANNING AN EXTERNAL ENGAGEMENT STRATEGY 6

STEP 1: Understand the Local Context 7

STEP 2: Identify Stakeholders and Conduct Stakeholder Analysis 8
2a) Stakeholder Identification 8
2b) Stakeholder Analysis 10
Guiding Questions for Stakeholder Identification & Analysis: 12
Example: Stakeholder identification and consultation for neighbourhood energy utility in Vancouver 13

STEP 3: Determine Key Messages 14
3.1) Use Mental Models and Framing to Enhance Message Delivery 14
3.2) Create Messages to Address Specific Needs and Concerns 16

STEP 4: Select Appropriate Public and Stakeholder Engagement Channels 18
Developers 19
Mass versus targeted communication: 20
Mass Communication/Engagement Approaches: 20
Targeted Communication/Engagement Approaches: 23
Example: The Value of Using Multiple Engagement Tools 26

STEP 5: Create an Integrated Implementation Plan 27

C: POTENTIAL FUTURE ACTIONS – DESIGN A MUNICIPAL ENGAGEMENT STRATEGY 28
Phase 1: 28
Phase 2: 28

D: APPENDIX & WORKSHEETS 29
WORKSHEET 1: THE PROJECT SCOPE AND CONTEXT 30
WORKSHEET 2: STAKEHOLDER IDENTIFICATION AND ANALYSIS - LISTING 31
WORKSHEET 3: STAKEHOLDER IDENTIFICATION AND ANALYSIS - CLASSIFICATION 32
WORKSHEET 4: STAKEHOLDER IDENTIFICATION AND ANALYSIS - PRIORITIZATION 33
WORKSHEET 5: STAKEHOLDER IDENTIFICATION AND ANALYSIS - STRATEGIZING 34
WORKSHEET 6: COMMUNICATION MESSAGES AND PLATFORMS 35
WORKSHEET 7: IMPLEMENTATION PLAN 36
Examples: District Energy communication developed by Municipalities 37
BONNYBROOK CENTER: OPEN HOUSE POSTER BOARDS 37
WHITEHORSE: DISTRICT ENERGY SYSTEMS POSTERS 38
WHITEHORSE: DISTRICT ENERGY SYSTEMS POSTCARDS 38

E: REFERENCES 39

INTRODUCTION

This guide is intended to assist Municipalities in developing their local Stakeholder Engagement strategies when considering District Energy. A District Energy System (DES) may also be referred to as a Thermal Grid (providing either heating and/ or cooling), and may also be a provider of locally generated electricity supplies (called co-generation), use local sources of renewable fuels to power the system, and have local renewable energy storage capacity. A District Energy System is an incremental step towards a long term goal and as such the engagement strategy should be considered not as a single event but rather as an ongoing activity.

There are many examples of local district energy solutions, nationally and internationally, some of which can be found in the resources section of this Guide. However, the focus of this guide is not on the technical aspects of District Energy development. Rather, it is a tool to help steer the Engagement process between a municipality and their local external stakeholders. For more information on District Energy technical issues and resources for Municipalities, such as the DE Learning Module for Municipal Planners, contact *de@nrcan-rncan.gc.ca*.

This Guide, with Worksheets and samples of some existing stakeholder communication products from municipalities, is based on the fundamental principles for community engagement, and has been developed as a starting point for Municipalities to utilize, or adapt, when they decide to proceed with development of a District Energy strategy.

A: RATIONALE FOR CREATING AN EXTERNAL PUBLIC ENGAGEMENT STRATEGY

Misconceptions exist around district energy systems. Potential end users, stakeholders, and municipal staff and elected officials may not be fully aware of how district energy systems work, their benefits, and contribution to enhancing the sustainability of communities (Canadian Urban Institute, CUI, 2011).

This lack of awareness and misunderstanding is a barrier to district energy growth. It diminishes political leadership and the development of effective policies or incentives to foster greater deployment. In turn, economic challenges prevail. The failure of the industry to deliver a persuasive and well-defined message about district energy often lessens the interest in tackling the knowledge challenge (CUI, 2011).

Greater and effective communication, successful stakeholder engagement and strong brand positioning are thus vital in addressing misconceptions, growing knowledge around this technology, and leveraging its integration into energy planning in communities.

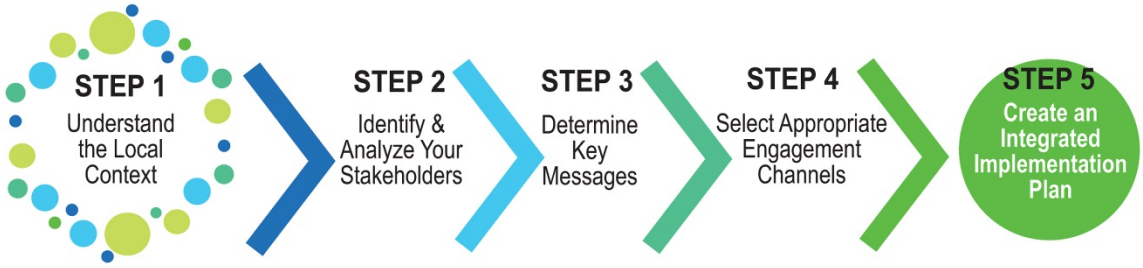
Besides tackling the preceding challenges, effective public and stakeholder engagement offers a number of broader benefits (Vanderheiden, 2008; Gonzalez & Tyler, 2007; Scholsberg, 1999 in Paavola, 2008; Thibault & Walker, 1975 in Lind & Tyler, 1988; Few et al., 2006 in Bjornberg & Hansson, 2011).

- It allows people to present their views and have some **control over policies** that affect them.
- It enables governments to learn **valuable information from local knowledge** in order to make more informed and sustainable decisions.
- It helps to increase the **legitimacy of policies**.
- It makes initiatives **easier to implement and more readily accepted**.
- It enhances **trust between stakeholders and government**.
- If a just and inclusive process is used, there is a greater chance of achieving desirable and fair outcomes.

Due to the complexity of district energy systems and the diversity of the stakeholders, **it is important for an engagement strategy to follow a structured and informed process.** This process is discussed in the remainder of this guide.

B: STEPS IN PLANNING AN EXTERNAL ENGAGEMENT STRATEGY

Five major steps are recommended when developing an engagement strategy for district energy. The next few sections outline each one in further detail.



STEP 1: Understand the Local Context

Public and stakeholder engagement is not a one size fits all exercise. It is fundamental to analyze the context in which engagement is being undertaken. This will enable municipalities to understand the complexity of district energy; the human resources needed; how it fits into overall municipal planning, policy-making, including capitalizing on other related planning opportunities; and the influence of the local political philosophy on district energy. As such, five key factors need to be considered.

1. **Leadership:** A community champion is vital in driving district energy forward. This could be a senior municipal staff member or politician or someone else in the community (e.g. representative from industry or non-governmental organization).

2. **Capacity Building:** Municipal councillors and staff that could oversee energy planning and specific projects should understand how district energy systems work, their benefits, whether it is feasible to institute them in their community, and how to implement them from an operational and community engagement perspective. This may require building awareness of district energy through workshops or other capacity building methods to achieve strong internal support for sustainable energy systems. This particular guide focuses on external stakeholders rather than internal ones but a communication and engagement strategy needs to be developed separately for the latter target audience as well.

3. **Integration:** It is important to understand how district energy may be integrated into overall city planning, complement long-term municipal objectives and piggyback on other similar activities. For instance, it can be embedded in high level municipal plans such as an Official Community Plan or Integrated Community Sustainability Plan, or in specific plans like a Community Energy and Emissions Plan or Climate Change Action Plan. Furthermore, district energy can be incorporated with other specific sustainability or climate change initiatives. Considering district energy within the broader picture of municipal planning is wise since energy planning is interrelated with land use, transportation, and sustainability planning, especially when aiming to increase urban densification. When integrating district energy into long range planning, local governments still need to present convincing reasons for being involved in community energy planning and considering district energy, as energy provision is not traditionally a key responsibility of municipalities. Usually, this is handled by provincial and federal governments.

4. **Policies and Regulations:** A much debated topic is whether to create by-laws that require mandatory connection to district energy systems, allow optional connection to these systems, or stipulate new buildings to be district energy ready. There are pros and cons with each approach. If potential customers are forced to join a district energy system, municipal government may face more opposition from clients even though greater use of the system will be achieved. On the other hand, selling new clients on district energy to encourage use will eventually create greater support but it will take longer to foster more widespread deployment. The third option - requiring new buildings to be district energy ready – provides a middle of the road solution. People may be more accepting of it because it does not require immediate action. However, it does delay connections to a future date.

5. **Political Environment:** The final point to consider is the political orientation or philosophy of city councillors and the mayor. This may affect the direction taken in energy planning as well as the type of communication messages delivered to different audiences.

Once the local context is fully understood, municipalities should then identify the key goals and objectives of their engagement strategy before proceeding through the next four steps.

STEP 2: Identify Stakeholders and Conduct Stakeholder Analysis

2a) Stakeholder Identification

Before determining appropriate engagement methods and developing communication messages, it is important to first identify key stakeholders. Stakeholders are internal and external organizations and individuals that have a vested interest in or are directly or indirectly impacted (International Finance Corporation, IFC, 2007). As previously indicated, the engagement and buy in of internal stakeholders (municipal staff) is essential but not the focus of this document.

In order to determine stakeholders, a number of tools may be utilized, including brainstorming, mind mapping, generic stakeholder lists, and reviewing previous similar projects with stakeholder identification and consultation (Morphy, 2013b). By reviewing prior projects, one can learn about possible risks and unresolved concerns as well as reduce the time needed to identify stakeholders. Potential sources of information may include impact assessments, consultation and grievance logs, project stakeholder lists and reports (IFC, 2007).

In the context of district energy, the following seven main external stakeholders have been identified:

1. **Developers:** This category encompasses all professionals involved in designing and constructing new buildings. Usually, in development corporations, engineers are the key drivers or inhibitors of DES. Developers will be consulted for connecting new buildings or their existing buildings to DES when these systems are owned and operated by municipalities or a private utility company. This stakeholder group may also decide to institute their own independent DES. ***Included in this category: Real Estate Developers, Commercial Developers, Home Builders, and Architects/Engineers***.

2. **Residential Users:** For detached housing, the individual homeowner will be both the decision maker and end user of district energy. In the case of multi-unit dwellings, the original developer or strata council will likely make the final decision on whether or not to connect to a district energy system. However, occupants of each unit may influence the decision maker. For new real estate projects, developers are the segment to engage with. ***Included in this category: Detached Homes, Townhomes, Apartments and Condominiums.***

3. **Commercial Users:** Similar to the preceding market, commercial developers usually decide whether to join a district energy system but tenants within the office buildings or retail spaces may persuade them to adopt this course of action. Industrial parks and stand-alone corporate buildings have strong influence in the uptake of district energy in certain areas and could be approached to be anchor players in DES projects. ***Included in this category: Retail Shops (owners/tenants), Office Buildings (owners/tenants), and Industrial Plants.***

4. **Institutional/Government:** This customer market incorporates municipal, provincial and federal facilities. Depending on the nature of the project, key decision makers will be senior officials at a facility level or higher level of governments. ***Included in this category: Schools/Universities/Colleges, Hospitals, and Municipal Facilities (Waste Treatment/Libraries/Community Centres).***

5. **Utility Companies and DES Service Providers:** Engineering and environmental consulting firms as well as equipment manufacturers and energy companies that design, fabricate the components of, and operate district energy systems fall within this category. ***Included in this category: Public/Private Utilities, Engineering Consultants, Project Management Companies, and Equipment Manufacturers.***

6. **Non-profit and Community Based Organizations:** NGO's that are interested in sustainability, clean energy and environmental health typically have a stake in district energy projects. ***Included in this category: Environment/Public Health and NGOs (Local, National, International).***

7. **Neighbours:** This includes residents and businesses located near the energy facility or plant that may or may not be customers.

Due to the large amount of stakeholders involved with any project, it is sometimes more efficient to liaise with representatives of different stakeholders. If this is done, it is important to ensure that they advocate the views of those organizations that they represent and will communicate information back to them about the district energy initiative. There is always a risk of misrepresentation and greater influence by some stakeholders over others which may create tension or conflict. Thus, it is important to have a good transparent process and to periodically broaden the consultation to include a broader number and range of stakeholders. It is also useful to employ a variety of communication vehicles to disseminate messages (IFC, 2007). To develop a stakeholders listing, refer to Worksheet 2.

2b) Stakeholder Analysis

The next step involves understanding **the nature of stakeholders' interests** , their goals and motivations, potential concerns, and **their level of influence** (low to high) (Morphy, 2013a & d). The first step in the analysis is to divide the stakeholders list into: **Supporters, Opponents and Observers** (Figure #1). To assist with this stage, it is useful to create a power/interest grid according to their level of interest and influence (Figure #2) and a final table to summarize this information and determine possible successful strategies for engagement (Figure #3).

Examples of each are highlighted below and worksheets are provided in the Appendix.

Figure 1: Classification

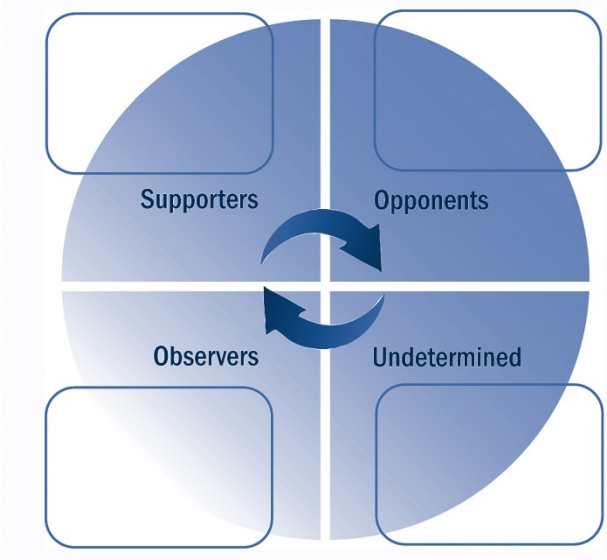


Figure 2 Prioritization

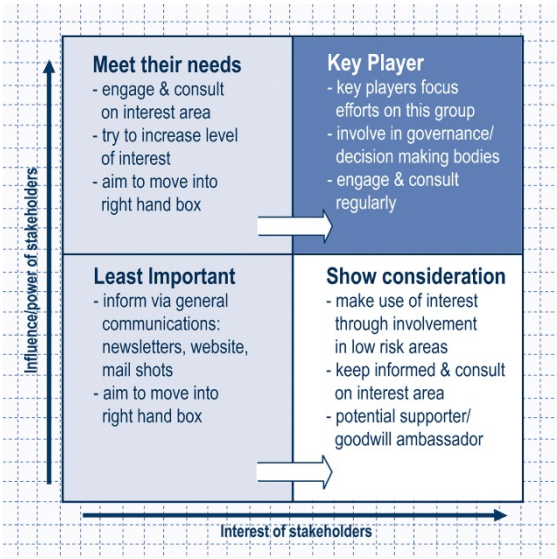


Figure 3: Strategizing

Stakeholder group	Goals, motivations, & interests	Influence	Interest	Action	Win/win strategies
Senior Management Board	The successful delivery of the project on budget & on time.	High	High	Key Player	Sign off of key decisions and stages via existing channels.
External Relations Office/Communications Office	Maintaining a positive public image for the university, its staff & students.	High	High	Key Player	Partner in the development & delivery of the communication plan.
Catering, Maintenance, Cleaning	Ability to continue business as usual and potential impact on existing contracts.	Low	High	Show Consideration	Show consideration via regular updates and provide clear channels for expressing concerns.
Fire Service	Compliance with regulations and fire safety.	High	Low	Meet Requirements	Ensure all projects follow correct procedures. No additional action.

While the opinions of supporters and neutral stakeholders should be considered, it is particularly important **to not ignore the perspectives and underestimate highly vocal opponents**. If the latter groups are not included in the engagement process and given the opportunity to provide constructive dialogue, they could communicate their concerns in the media or through other public channels, which could affect the success (IFC, 2007).

In determining which stakeholders to engage with most, **more time and resources should be devoted to high priority groups or those with considerable influence and interest**. On the other hand, stakeholders with less power and attention towards a project should be given enough information to satisfy their needs (Morphy, 2013a). The closer the segment is to a project, the more interested and impacted they are. The stakeholder identification and analysis process enables you to identify where to target your resources and where to expect the most interaction.

In conclusion, stakeholder identification and analysis needs to continue at regular intervals since **stakeholders and their interests can evolve as projects progress**. It should not solely be done at the beginning of projects, as is usually the case (IFC, 2007).

Guiding Questions for Stakeholder Identification & Analysis:

- What are the various interests of stakeholders and what influence might this have on a project?
- What stakeholders can best assist with the early scoping of issues and impacts?
- Who is critical to engage with first and why?
- Who strongly supports or opposes the changes that a project will bring and why?
- Which are the dominant industries, commercial and residential buildings near the proposed project?
- What are the possible triggers and motivations for them to connect to a district energy system?
- How knowledgeable are the potential customers in these markets about district energy?
- Who are the major players in the development industry and what is their experience with district energy?
- Who are the key DES service providers and how may they influence a DES project?
- What community based or non-profit organizations may support or oppose a DES project and why?

Sources: ***IFC, 2007 and authors' ideas***

Example:

Stakeholder identification and consultation for neighbourhood energy utility in Vancouver.

In 2011, the City of Vancouver identified stakeholders with varying positions on neighbourhood energy systems, including environmental NGOs, academia, government agencies, utilities, and residents, and invited them to one of four structured decision making workshops held between May and November.

The sessions uncovered their values for low carbon technologies. To address them, experts often presented scientifically substantiated responses to participants.

The workshops helped to formulate the 2012 Neighbourhood Energy Centre Guidelines that highlight five main value areas: climate protection, air quality, neighbour fit, sustainability of fuel sources, and community engagement. The last one outlines the spirit of engagement (e.g. open and transparent process). These guidelines are primarily to be used by proponents that wish to develop energy centres or significantly renovate existing ones. The city requires that they respond to all concerns and show evidence of their replies.

Besides the preceding workshops, two others were held in December 2011 and May 2012 to discuss a strategic approach to NES in addition to possible challenges and opportunities to their greater usage. Utility companies, developers, landowners, government agencies, and energy associations primarily participated in these discussions.

Source: Vancouver Neighbour Energy Strategy and Energy Centre Guidelines
http://vancouver.ca/files/cov/NEU_staff_presentation_.pdf

STEP 3: Determine Key Messages

3.1) Use Mental Models and Framing to Enhance Message Delivery

When creating communication messages, two concepts are important for increasing the success of connecting with the target audience –**mental models and framing**.

According to the Centre for Research on Environmental Decisions (2009), people assimilate information based on their own **mental model or "thought process for how something works"**. Personal experiences, perceptions, ideology and partial facts collectively influence people's actions, how they resolve problems and what things they notice. As a result, they may not process all the information communicated to them and search for messages that only align with their current views. In order to alter behaviour or thoughts about a topic, misconceptions need to be understood and then substituted with accurate information (CRED, 2009).

In the case of district energy, some misperceptions have been identified according to some mental models of target audiences based on this research. The following are a few examples:

- **Price:** The initial and long term cost of heating or cooling spaces from a district energy system is higher than from traditional sources located within individual buildings. Similarly, it is not necessarily more cost-effective to obtain electricity from combined heat and power plants than conventional utility companies, such as BC Hydro.
- **Reliability:** District energy systems are not always considered to be reliable sources of heating or cooling. For some, only the burning of fuel can produce a reliable amount of heat.
- **Biomass as a Fuel Source for DES:** This fuel source increases air pollution and emits strong odours in the community in which the plant is located.
- **Aesthetics:** The energy plants for district energy are unattractive and will not fit in with aesthetics of the local neighbourhood.
- **Environmental benefits:** DES are not always viewed as being green solutions for many environmental issues such as climate change.
- **Electricity Provision:** District energy provides electricity for buildings. While this can be the case with a combined heat and power facility, many potential users do not realize that DES are primarily used for heating and cooling spaces.

Once audience members' mental models are understood, articulating messages in a frame that corresponds to their perspectives or addresses their misconceptions increases the chances of reaching out to them. **Framing involves the "setting of an issue within an appropriate context to achieve a desired interpretation or perspective**" (CRED, 2009). It can make particular aspects of a subject more relevant than others as well as explain why something is a concern along with possible solutions (CRED, 2009).

Tips on how to frame a particular issue or subject are highlighted in the following table and supported by DES examples (adapted from CRED, 2009):

Table 1: tips on framing a particular issue or subject

Tip	Explanation & Example
Promotion versus Prevention: *Ideas could be presented in the form of encouraging or preventing a specific outcome.*	Different audiences relate differently to outcomes. Promotion focused individuals are stimulated by advancement and greater gains, while prevention focused people wish to limit losses. Depending on the context, the promotion (i.e. "connecting to a district energy system benefits you and the city") or prevention approach (i.e. "not using district energy prevents the community from achieving certain sustainability goals") would be more successful. Using both approaches increases the chances of reaching a wider audience.
Now versus Future: *Highlight benefits from taking action now instead of waiting until the future*	Individuals usually react stronger to current rather than future threats or gains. For example, developers will relate more to how introducing district energy in their upcoming commercial development will affect the demand for leasing in the coming year rather than supporting the companies' five years sustainability objectives.
Gain versus Loss: *Higher value on minimizing loss rather more than pursuing gains*	Citizens and businesses are more concerned about losses than gains. For instance, homeowners are more motivated if the benefit of district energy is to avoid losing money on higher energy bills instead of helping them save money in the future.
Interconnectedness: *Highlight connections with other issues*	People may take a particular action when they see the connections to many issues rather than one only. District energy could be framed as a way to increase community preparedness to extreme weather events, help to reduce respiratory illnesses from air pollutants and greenhouse gases, and offer job opportunities at an energy plant.
Local versus National or Global: *Connect with local context instead of communities or regions further away*	People are affected by messages that directly relate to them. When developing messages about district energy systems, a local benefit resonates more with an audience than a national impact (e.g. job creation in the local community versus the entire province).

The presentation of key messages in a format that the audience can relate to is also fundamental to achieving success (CRED, 2009). In the case of district energy:

- Avoid technical jargon; utilize common language and present information in a simple manner that the audience can relate to (i.e. “neighbourhood energy systems” instead of district energy systems).
- Use graphs, charts, comparative tables, illustrations, and models to ensure the public is not turned off by the complexity of the topic.
- Refer to personal experiences and anecdotes, success stories and emotional imagery to reach both parts of the human brain - the analytic and logical side as well as the emotional and intuitive side.

3.2) Create Messages to Address Specific Needs and Concerns

The development of messages around a DES is complex due to the various levels of literacy and motivations of the various stakeholder groups. Since stakeholders’ needs shift depending on the characteristics and implications of district energy, adopt a needs based approach to developing the messages. Based on the workshops and background research conducted for this guide, the following ideas could be stressed:

Examples of Messages to address Needs/Concerns:

Needs/Concerns	Key Messages
Lack of understanding of district energy	▪ Focus on the basics of district energy (what, how and the why) including addressing common myths and misconceptions about these systems. These types of messages may be disseminated either through broad corporate communication alongside other topics pertaining to sustainability, energy planning and climate change, or they may be conveyed at a tactical level when engaging in project specific communication.
Financial Concerns	▪ Emphasize the cost-effectiveness of district energy based on life cycle costs if competitive against business as usual heating and electricity source(s). This will depend on the type of fuel source used. Cost comparisons should reveal the true or full cost. Often, some costs are hidden in existing comparisons. ▪ Highlight low capital investment when utility companies or the municipality finances district energy. This could be turned into a selling point. ▪ Explain that district energy is a proven technology and not new. Demonstrate its success by showcasing the experiences of satisfied customers with testimonials, stories and case studies. ▪ Illustrate how people do not want to stop using a DES once they have started.

Needs/Concerns	Key Messages
Reliability of Energy Price and Supply Concerns	▪ Highlight that district energy is a proven technology and not unfamiliar. Present testimonials & experiences of pleased customers. ▪ Explain how district energy is a resilient and reliable energy source during increasingly extreme weather events due its central redundancy. The ability to change fuel sources over time or use more than one source provides a reliable, cost-effective source of energy during fluctuations in energy prices. ▪ Illustrate how it is capable of meeting growing energy demand.
Environmental Concerns	▪ Develop environmental messages in consultation with experts in the specific areas of concerns and articulate in a simplified manner so affected stakeholders can understand. ▪ Describe how these systems are a resilient and reliable energy source during extreme weather events. ▪ Illustrate that district energy is a game-changer. It is the next step after energy efficiency and energy conservation measures. ▪ Show how it can improve air quality, increase the energy efficiency of buildings, and act as a green solution to certain environmental challenges. ▪ Demonstrate how district energy is an efficient energy solution for high density urban developments. It helps to respond to population growth and increasing energy demands.
Technical concerns	▪ Develop technical messages in consultation with a technical team who have been involved in similar projects. ▪ Highlight that district energy is a proven technology and not new. ▪ Discuss flexibility of switching between fuel sources.
Aesthetic concerns	▪ Highlight successful examples of nicely designed energy plants/ facilities. ▪ Develop visuals or models to display.

In addition to creating general messages to deal with these broader topics, tailored messages will need to be developed for different types of customers and stakeholders based on their own unique needs, values and motivations once these are learned and clearly understood (see stakeholder analysis step).

STEP 4: Select Appropriate Public and Stakeholder Engagement Channels

A range of engagement methods are available to municipalities. The particular channel chosen will depend on whether communities wish to inform, consult, involve, collaborate and/or empower stakeholders. Each level of the International Association of Public Participation (IAPP) Spectrum of Public Participation (2007) explains the nuances between the levels:

Inform: Present information to your audience about a particular problem or solutions. Engagement is one-way.

Consult: Elicit public or stakeholder feedback on proposed options and decisions, acknowledge their point of view, and explain how they affected the final decision.

Involve: During the entire decision-making process, work closely with the public and stakeholders to learn about and reflect on their concerns and goals. The latter should be taken into account in possible solutions. Municipalities should also indicate how public opinion influenced the final decision.

Collaborate: Partner with the public and stakeholders during all phases of the decision-making process. This includes identifying possible solutions to a problem and determining the preferred one. Their advice is considered to a large degree in the final decision.

Empower: Implement the final decision which has actually been made by the public and stakeholders.

Generally, informing should be used with low interest and less powerful stakeholders, consultation should be utilized with individuals and organization exhibiting high interest but limited influence, involvement and collaboration should be employed with stakeholders having low interest and a large amount of power, and empowerment should be applied with key players displaying both high influence and interest (IAPP, 2007; Morphy, 2013c).

The following table outlines specific tools and techniques for different forms of engagement and communication by stakeholder group. The neighbours near a district energy facility or plant, depending on their nature (business versus residential), will fall in one of those categories.

Table 2: Range of Engagement methods for stakeholder groups

Stakeholder Group	Inform	Consult	Involve	Collaborate	Empower
Developers	- Ads in trade publications - Brochure or Fact sheet - Newsletter - Site tour - E-mail list - Industry Blog	- Survey - Presentations at professional association meetings and industry events	- One on one meeting with decision makers of buildings - Capacity Building Workshops - Stakeholder meeting - Energy Centre Design Charrette	- Advisory Committee Task Force	
Residential Users	- Personal letters to management of multi-unit buildings - Direct Mail campaign to tenants, condo owners and home owners - Advertisements in community newspapers - Media release - Website - Social media (e.g. YouTube and facebook) - Brochure or Fact sheet - Display or poster board - Open house - Site tour	- Public meeting - Survey - Focus Group - Hotline - On line forum - Suggestion box	- One on one meeting with decision maker of building - Energy Centre Design Charrette	- Citizen Advisory Committee	- Citizen Jury
Commercial Users	- Personal letters to management or owners of specific buildings - Direct Mail to tenants of office buildings - Website - Brochure or Fact sheet - Newsletter - Site tour	- Public meeting or presentations at Chamber of Commerce or business association meetings (e.g. BIAs) - Survey	- One on one meeting with decision maker of building - Energy Centre Design Charrette	- Business Advisory Committee	
Utilities and DES Service Providers	- Ads in trade publications - Brochure or Fact sheet - Newsletter - E-mail list - Industry Specialized blog	- Survey - Presentations at professional association meetings	- One on one meeting - Energy Centre Design Charrette - Stakeholder meeting /Workshops	- Advisory Committee - Task Force/Expert Committee	
Non-Profit and Community Based Organizations	- Ads in local publications - Brochure or Fact sheet - Newsletter - Site tour - E-mail list - Blogs	- Survey - Presentations	- Stakeholder meeting/ Workshops - Energy Centre Design Charrette	- Advisory Committee Task Force/ - Expert Committee	

Mass versus targeted communication:

It is important to clearly differentiate between the tactical and strategic communication of district energy.

In the case of individual project implementation, targeted communication is recommended. The intent of the tactical communication is to address the concerns of particular groups affected. The communication in this context is tangible, rational and based on evidence. As in the example of the City of Vancouver presented earlier, the project team for False Creek District Energy called upon experts to respond to each of the topics raised during the stakeholder engagement process and responded to concerns based on scientific data.

However, mass communication for district energy is more applicable where district energy is a key component in city energy or sustainability planning and when a series of DES are implemented. In this case, the communication strategically positions DES in the broader context such as an efficient energy solution for sustainable and resilient communities. The intent of the corporate communication is to build general awareness of DE technology, address broad misconceptions and create a favourable environment for any future tactical communication.

Whether targeted or mass communications around district energy, the audience has to relate to the message. As stated earlier, when communicating district energy:

- Avoid technical jargon, utilize common language and present information in a simple manner that the audience can relate to (i.e.: “neighbourhood energy systems” instead of district energy systems).
- Use graphs, charts, comparative tables, illustrations, and models to ensure the public is not turned off by the complexity of the topic.
- Refer to personal experiences and anecdotes, success stories and emotional imagery to reach both parts of the human brain - the analytic and logical side as well as the emotional and intuitive side.

Mass Communication/Engagement Approaches:

The following section discusses the benefits and drawbacks of the different mass and targeted communication and engagement methods listed above. Specific examples of where these tools have been used in Canadian municipalities are also identified, where possible.

Advertisements: Ads placed in community newspapers or other publications that are circulated to every household will gain high visibility within the community. Repetition can improve the chance of messages being received. Advertising in trade publications can be an effective way to reach the development community and district energy service

providers, including engineering consultants, architects and planners, real estate developers, and district energy equipment manufacturers, as they are likely to subscribe to these professional publications. In general, this vehicle is more expensive than other communication mediums, especially in urban centres.

Brochures/Fact Sheets: These two types of publications present short and simple messages with the use of graphics and text. They are usually folded or single full size pages. They are useful in summarizing information. However, space limitations make it difficult to explain more complicated information so it is imperative to use easy to understand language. It is also important to make them visually interesting. Comment forms can be included for feedback. Brochures and fact sheets may be distributed through newspapers, at community events or other settings (e.g. libraries and community centres), via e-mail lists or list serves, or posted on websites in PDF formats. Thus, widespread distribution is possible.

Examples: Vancouver District Energy Fact Sheets **- City of Vancouver Neighbourhood Energy Utility Factsheet** **http://vancouver.ca/docs/planning/renewable-energy-neighbourhood-utility-factsheet.pdf**
Markham District Energy Fact Sheets **- MDE Backgrounder and Fact Sheet**
http://www.districtenergy.org/assets/CDEA/Case-Studies/Markham-District-Energy-5-29-07.pdf Brochure, Drake Landing - http://www.dlsc.ca/DLSC Brochure e.pdf

Media Releases: Forwarding news releases to local media outlets can be a valuable way to inform the community of progress on issues or projects, and upcoming public events. Compared to advertisements, the information is often seen as more credible because the story is presented by a third party. In addition, there is no cost to send a media release unlike ads. However, there is no guarantee that the media outlets will print or broadcast the story since it is unpaid. It may also be placed in poor locations.

Example: Victoria's Dockside Green was featured in a wide variety of newspaper articles, which illustrates its effective use of media releases. A sample article is featured here
http://www.theglobeandmail.com/news/national/time-to-lead/victorias-district-energy-community-a-model-for-canada-and-beyond/article555127/.

Websites/Blogs: This communication vehicle can be used to post notices of upcoming public engagement activities, feature a news story about a proposed district energy project, present Q&A's about district energy or explain how it works, and post brochures, fact sheets and podcasts about these systems. Blogs, in particular, are beneficial for posting comments or providing new information on specific topics. Today, most people and businesses have access to the internet and usually turn to this medium as a source of information for various topics. It is a very cost-effective, accessible and simple way to provide information. Blogs are easy to create and manage. Furthermore, they offer an excellent opportunity to learn the views of specific target audiences.

Examples: Drake Landing website **- http://www.dlsc.ca**
Whistle Bend website **- www.whistlebendsolar.ca**

On-line Forums: An on-line forum allows people to post their views and discuss topics with other interested parties. A forum may be set up as part of a municipal website or on a separate website entirely. Either the participants or an administrator may determine the discussion topics. This tool allows people to comment at any time of day so it is convenient for community members who are unable to attend meetings or open houses. For the organizer, less physical effort is required compared to the latter types of engagement activities.

Non district energy Examples: City of Melbourne Future Visioning -
http://www.futuremelbourne.com.au/wiki/view/FMPlan
Live Smart BC - **www.livesmartbccommunity.ca/blogs/livesmart-bc-public-blog**

Social Media (e.g. YouTube or Facebook): Social networking sites enable municipalities to promote and share information on specific issues through videos, photos and text. Facebook, in particular, also provides the opportunity to connect with people interested in particular topics and be endorsed by others engaged in the online community. Members can also comment on ideas or take part in polls. Many people, especially younger demographic groups, are actively involved with social media. Therefore this tool is an excellent way to reach this audience.

Examples: Victoria's Dockside Green Development video on YouTube –
http://www.youtube.com/watch?v=9vkdG-pQ5Kg.
Vidéo You Tube du Alexandra District Energy Utility de Richmond sur le site Web de la ville -
http://www.richmond.ca/sustainability/energysrvs/energyutility.htm

Suggestion Box: People record their suggestions or give feedback on a particular topic either in writing for deposit into a box or via a comments section of a website. Typically, this is done anonymously. This anonymity may encourage some people or organizations to provide their opinions more readily on a project or issue.

Hot Line: A specific phone number can be set up to provide pre-recorded information about district energy and/or allow residents and organizations to receive answers to questions and present their opinions. If it is used for the latter purposes, the staff members handling the phone calls need to be knowledgeable and well prepared. Hot lines help to control information flow and are a simple way to educate people on projects.

Displays & Poster Boards at Info Booths: With strong images, attractive signage, and short and concise text, these tools can provide valuable information to potential customers and attract new audiences, particularly if they are placed in high traffic locations where good exposure is possible. People also have the opportunity to pose questions to people directly involved with projects. Handouts can also be made available.

Examples: Enmax used a poster display at a past open house for the Bonneybrook Energy Centre in Calgary, which is expected to open in the summer of 2016. Whitehorse has created postcards and posters for the Whistle Bend Solar District Energy Project. Refer to the Appendix for these examples.

Open House/Public Exhibition: At these events, several booths or information stations are erected in a room at an accessible venue to highlight different topics or a specific plan or project. Visitors wander freely through the exhibit area. This communication tool can encourage small group or one on one discussion between patrons and exhibitors, thus providing people with the opportunity to express their opinions. It can be hard to record feedback from visitors for future reference. This approach is also more labour intensive than meetings.

Targeted Communication/Engagement Approaches:

Direct Mail/Personal Letters: Unaddressed mail or personally addressed letters that discuss potential district energy projects can be targeted to specific neighbourhoods and building owners. This can be a fairly inexpensive way to reach future customers of district energy systems, particularly if the mail is not personalized. However, unsolicited mail may be ignored by recipients.

Newsletters: Newsletters that are produced on a regular basis are frequently used to educate people about specific issues or projects and update them on activities and events. Usually, newsletters are produced according to a certain format, which facilitates quick publication. They may be distributed in many ways but e-mail circulation is the most inexpensive.

Site Tours: A tour may be conducted of an existing district energy facility or the proposed site of a new one. It gives organizations and citizens the chance to learn about these systems and the project, ask questions, and provide their opinions. Rapport can be developed with potential customers. Unfortunately, there is often a limit to the number of people that can attend.

Example: Tour of the Alexandra District Energy Utility in Richmond as illustrated in a YouTube video on the city's website - http://www.richmond.ca/sustainability/energysrvs/energyutility.htm

Surveys: Through a series of simple, closed-ended questions, surveys can be useful in evaluating the need for district energy in a municipality as well as soliciting feedback and opinions about them from both the residential and business community. Either a whole community or certain groups may be targeted. In either case, it is important to have a representative and large enough sample so response data is valuable. Typically, surveys are done by mail, telephone, in person, or via a website. Each distribution method has advantages and disadvantages. Mailed surveys usually have low response rates but can solicit input from people that may not go to public meetings or open houses. In person ones can be expensive but are fairly representative. Web based surveys can provide higher response rates and also reach citizens that may not come to in person engagement sessions. However, the results are not always statistically valid and it can be time consuming to review all of the data. Telephone surveys offer similar advantages as web-based versions

but they can be labour intensive and costly, particularly in relation to mailed surveys. It may also be difficult to reach certain audiences with more people owning cell phones only.

Focus Groups: In contrast to surveys, a facilitator poses open-ended questions to a small group of people that are randomly selected (approximately ten). A few sessions are beneficial. This tool is valuable when a specific sub-group of a community needs to be targeted. Compared to surveys, the data is not necessarily representative of the entire population. It is a fairly inexpensive tool, but participants may need to be given some compensation. This method could be valuable for testing communication messages related to district energy before wide scale roll-out.

One on One/Small Meetings: These types of meetings with potential customers of a district energy system permit an in depth discussion of their energy needs, the benefits of these systems and how they work. There is also the opportunity for clients to express their viewpoints about district energy. A key drawback to this approach is the amount of time needed to communicate with all potential clients.

Example: Southampton, UK – Pages 8-9 of the following case study outline how this technique applies here.

IEA Southampton Case Study
http://www.ieadhc.org/index.php?eID=tx_nawsecuredl&u=0&g=0&t=1400092339&hash=8a93d002669d926233b28ffd6dd6ca0ab66e3dee&file=fileadmin/documents/DHC_CHP_Case_Studies/KN1640_Southampton_v2.pdf

Public Meetings/Presentations: In these facilitated sessions, residents and organizations can receive information, ask questions, and discuss concerns pertaining to a particular topic. Often, presentations are given at the beginning. To target organizations specifically, presentations could be held at a Chamber of Commerce or local business association meetings. While this tool can be effective for informing and soliciting public input, there is a chance that attendees do not represent the full spectrum of local views, and that certain individual views could dominate the discussions if not facilitated properly. Furthermore, meetings can get out of control when people feel strongly about a topic.

Workshops: Facilitated workshops can be effective learning platforms for large or small groups of people to create a shared understanding of issues and subject areas and to strategize on effective solutions. The format of a workshop usually provides an opportunity for interactive dialogue between participants and with subject experts. Complex topics can be broken down into more easily understandable parts.

Charrettes: Over a few days, stakeholders within a community meet with experts to discuss specific issues or the design features of a particular project such as a neighbourhood energy centre. Open discussions about a topic take place with the aim to develop creative and collaborative solutions to problems. This engagement tool appeals to and benefits from the inclusion of a diverse range of stakeholders.

Advisory Group: These groups may be comprised of citizens, the business community or other stakeholders, which offer input on policies, planning or specific projects. They may be formed for a short period of time or long-term to provide continuous guidance. The representatives may have some expertise on the subject matter or experts may be asked to join. Members are typically selected by the municipality. Advisory groups allow for a more comprehensive understanding of an issue and the views of members with the goal of achieving consensus. However, the latter goal may not always be possible. While these methods can enhance support and legitimacy for projects, they do require considerable time and effort and the broader public may not embrace their recommendations.

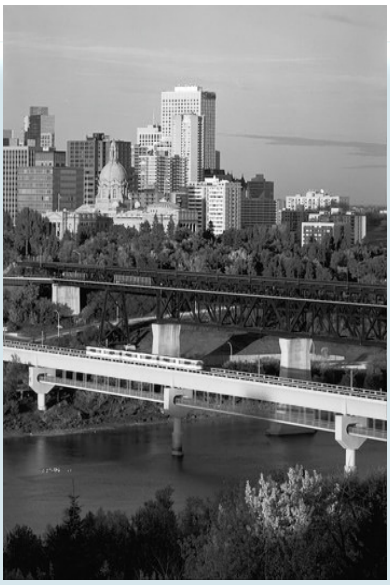
Examples: Edmonton's Citizen Panel for Energy & Climate Change - Approximately 60 residents, which democratically represented different demographic groups living in Edmonton, met regularly for discussion sessions over a period of time. The panel produced a paper that included recommendations for the city. This example was learned from a conversation with a city staff member.

Guelph's Community Energy Plan Consortium
http://guelph.ca/wp-content/uploads/report_communityEnergyInitiative.pdf – This consortium led the development of the city's community energy plan. It was comprised of a diverse range of stakeholders, including representatives from academia, the Homebuilder's and Development associations, non-profit organizations, utility companies, the Chamber of Commerce, and city departments.

Task Force/Expert Committee: A number of experts or people that represent different stakeholders within the community make up these entities. Their main purpose is to provide recommendations for policies. When creating task forces or expert committees, municipal governments are careful to select members with high credibility, thus ensuring that the findings and recommendations are considered to be trustworthy. While these stakeholder engagement methods can foster consensus on a topic, there may be times when this is not possible or the findings are too general to be valuable. Another drawback is the amount of time and human resources needed.

Citizen Jury: A citizen jury is a relatively formal process whereby approximately 12-16 citizens or "jurors" meet over a few days to deliberate on various elements of an issue, often in subgroups. Experts are available for citizens to ask questions and receive information. Following the discussions, the citizens present their decision to the organization or municipality that set up the jury. The recommendations are not binding. Afterwards, the convening body announces the findings and responds to them. If it decides not to honour them, it must provide an explanation. If the authority plans to use the recommendations, it must state how. This public engagement method is an excellent way to gain input from residents and assess public reaction to proposed policies, plans and projects. It also contributes to a more democratic decision-making process. Other citizens tend to relate to the "jurors". On the other hand, this approach requires a large amount of resources.

Sources: Adapted from SPARC BC's Community Engagement Toolkit and IAPP's PublicParticipation Toolbox



Example:

The Value of Using Multiple Engagement Tools - Edmonton's "The Way We Green" Environmental Plan

When conducting public and stakeholder engagement as part of developing its environmental plan "The Way We Green", the City of Edmonton utilized an assortment of methods. To consult with and involve stakeholders in the planning process, it held a series of workshops, developed a survey, conducted meetings with industry and the Chamber of Commerce, and created a five member expert review panel to elicit advice and guidance.

To engage individual community members, the city created a separate website for the project (www.the waywegreen.ca), performed focus groups, and conducted phone, in person and online surveys. The "in person" versions were completed where people gather in the community. Later on, people were asked to comment on a White Paper created from the engagement process. For the topics of energy and climate change, a citizen panel was also formed to receive recommendations for future action. Lastly, the city held an expert speaker series to get people interested in various environmental sustainability topics.

To notify citizens and organizations about events (e.g. speaker series and stakeholder sessions), it advertised in different media sources, sent e-mails to its own network of contacts, and placed notices in newsletters of different organizations, including Edmonton Federation of Community Leagues, Edmonton's Community Services, Edmonton's Youth Council, and Next Gen. Based on its successful experience, the city recommends using a wide variety of tools during an engagement process.

Source*: Interview with Municipal Staff Member*
Photo: *City of Edmonton*

STEP 5: Create an Integrated Implementation Plan

The implementation plan is the final stage of the planning process. All the information gathered across the previous steps are consolidated and reflected in the implementation plan. The latter encompasses the series of tasks to be assigned, the team members to be involved, the suppliers to be outsourced, the budget to be allocated, and the deadlines to be met. The implementation plan also helps to track work progress towards goals and milestones.

For this purpose, worksheets have been designed to facilitate this stage and each step in the creation of a stakeholder engagement program. Worksheets are located in the Appendix:

Worksheet I: The Project Scope and Context

Worksheet 2: Stakeholder Identification and Analysis: Listing

Worksheet 3: Stakeholder Identification and Analysis: : Classification

Worksheet 4:: Stakeholder Identification and Analysis: Prioritization

Worksheet 5 : Stakeholder Identification and Analysis: Strategizing

Worksheet 6: Communication Messages and Platforms

Worksheet 7: Implementation Plan

C: POTENTIAL FUTURE ACTIONS – DESIGN A MUNICIPAL ENGAGEMENT STRATEGY

As explained earlier, the need to develop an internal engagement strategy for municipalities is just as crucial as an external one for the growth of district energy. An internal engagement strategy would mainly target municipal staff involved in energy planning, such as community planners, engineers, communication specialists, and the senior management team of the city. The goal of such a strategy would be twofold: 1) to gain internal support for district energy and 2) to build capacity for developing district energy systems.

The process of designing a municipal engagement strategy would encompass the following stages:

Phase 1:

Conduct research to thoroughly understand the gaps and needs within municipalities as well as to identify the most effective internal communication platforms

Design an internal engagement strategy for education on district energy and capacity building for the various internal stakeholders. Learning modules for municipalities are available from de@nrcan-rncan.gc.ca

Phase 2:

- Develop internal communication material and capacity building tools for municipalities.
- Operate a pilot program in one or two municipalities to test the tools and refine them prior to broader dissemination

D: APPENDIX & WORKSHEETS

Worksheet I: The Project Scope and Context

Worksheet 2: Stakeholder Identification and Analysis: Listing

Worksheet 3: Stakeholder Identification and Analysis: : Classification

Worksheet 4:: Stakeholder Identification and Analysis: Prioritization

Worksheet 5 : Stakeholder Identification and Analysis: Strategizing

Worksheet 6: Communication Messages and Platforms

Worksheet 7: Implementation Plan

Examples: District Energy communication products developed by Municipalities

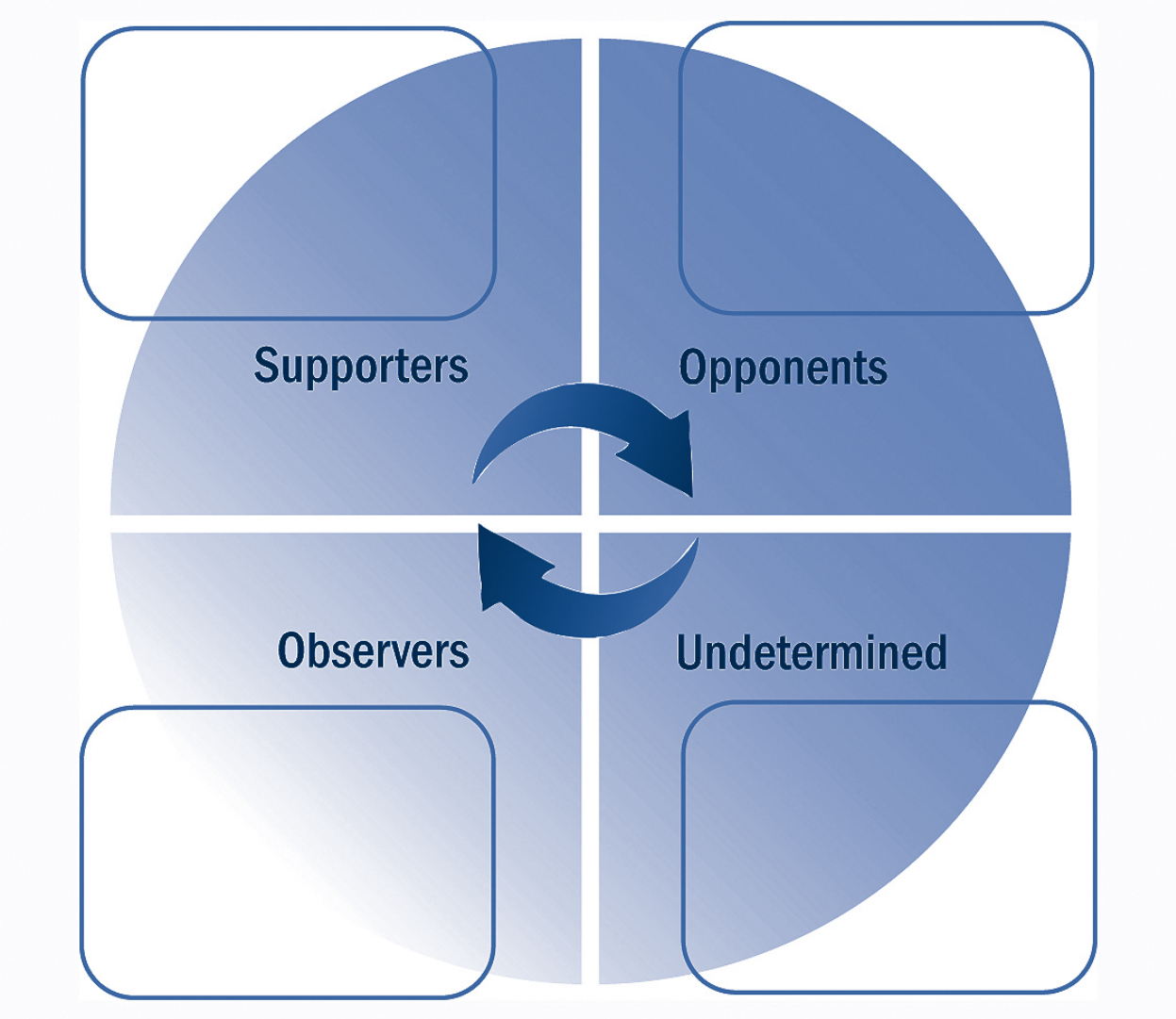
WORKSHEET 1: THE PROJECT SCOPE AND CONTEXT

Project Description	
Project Goal	
Context:	
City Vision	
City Champion	
Local History of District Energy	
Potential Barriers	
Potential Opportunities	
Timeline	
Resources	
Team	
Tools	
Financial	
Additional Information	

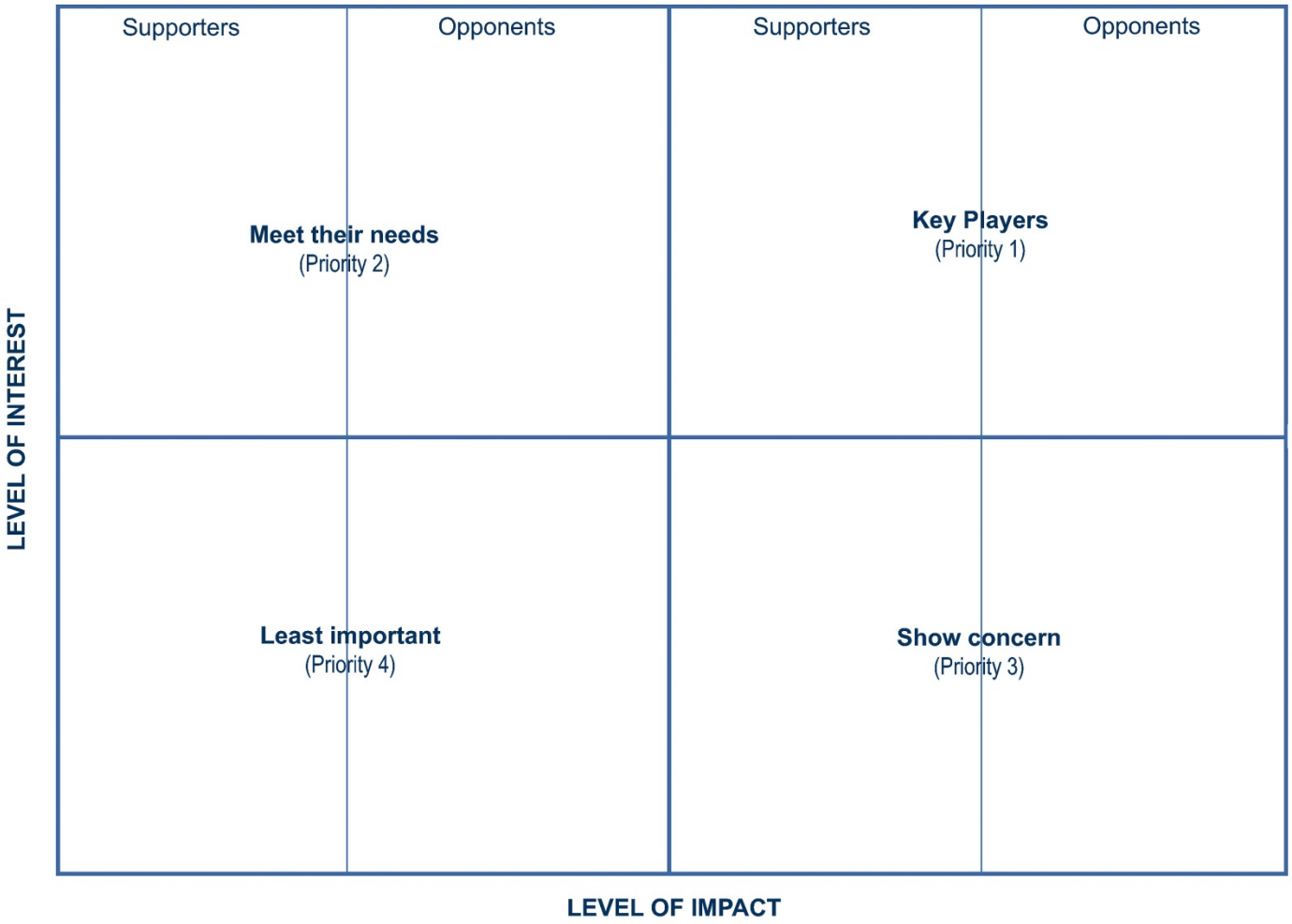
WORKSHEET 2: STAKEHOLDER IDENTIFICATION AND ANALYSIS - LISTING

Group	Category (i.e. NGO)	Representatives	Possible Issues & Concerns	History / Additional Comments

WORKSHEET 3: STAKEHOLDER IDENTIFICATION AND ANALYSIS - CLASSIFICATION



WORKSHEET 4: STAKEHOLDER IDENTIFICATION AND ANALYSIS - PRIORITIZATION



WORKSHEET 5: STAKEHOLDER IDENTIFICATION AND ANALYSIS - STRATEGIZING

Stakeholder Group	Goals, Motivations	Influence (High, Medium, Low)	Impact (High, Medium, Low)	Priority (1, 2, 3, 4)	Strategies

WORKSHEET 6: COMMUNICATION MESSAGES AND PLATFORMS

Stakeholder Group	Level of Priority (1,2,3,4)	Group Size	Objective	Communications Messages	Communication Channels

WORKSHEET 7: IMPLEMENTATION PLAN

Communication Activities	Start Date	End Date	Activity Lead	Tools	Internal Resources	External Resources	Estimated Costs	Comments

Examples: District Energy communication products developed by Municipalities

BONNYBROOK CENTER: OPEN HOUSE POSTER BOARDS

ENMAX

Combined Cycle Turbine Technology

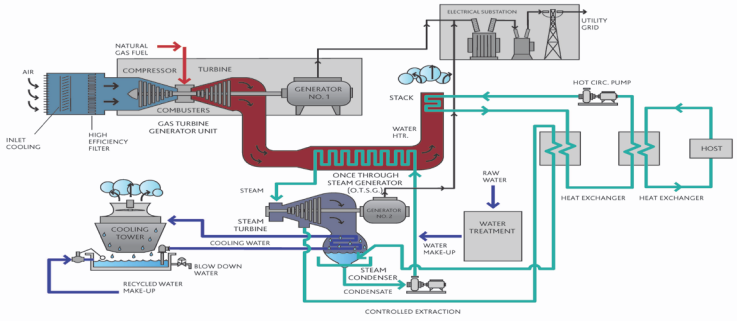
Producing Electricity With Gas Turbines

- Energy is released when compressed air is mixed with gas and ignited in the combustor
- The resulting hot exhaust gases are directed through a series of turbine blades and nozzles, spinning the turbine, and mechanically powering the compressor
- The turbine is rotated by the expanding gas pushing on the turbine blades and also by creating a thrust effect as it exits the blade passage
- Energy is extracted in the form of shaft power and compressed air
- Waste heat from the gas turbine is recovered by a heat recovery steam generator to power a steam turbine

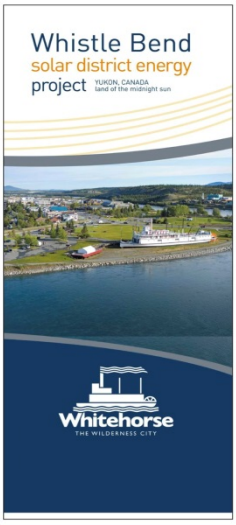
ENMAX

Combined Cycle Turbine Technology

In combined cycle turbine technology natural gas is burned in combustion turbines that produce both electricity and heat. The heat is then captured to produce even more electricity through a steam turbine.



WHITEHORSE: DISTRICT ENERGY SYSTEMS POSTERS



WHITEHORSE: DISTRICT ENERGY SYSTEMS POSTCARDS

E: REFERENCES

BC Climate Action Toolkit (2003). District Energy Systems. http://www.toolkit.bc.ca/tool/district-energy-systems.

Bjornberg, K. E., & Hansson, S. O. (2011). Five areas of Value Judgment in Local Adaptation to Climate Change. Local Government Studies, 37(6), 671-687.

Canadian Urban Institute. (2008, January). *The New District Energy: Building Blocks for Sustainable Community Development*. Toronto, ON: CUI.
Retrieved from http://www.ontario-sea.org/Storage/32/2406_The_New_District_Energy_-_Building_Blocks_for_Sustainable_Community_Development.pdf.

Canadian Urban Institute & C2C Strategies. (2011, June). *An Action Plan for Growing District Energy Systems Across Canada*. Toronto, ON: CUI & C2C Strategies. Retrieved from http://www.canurb.com/cui-publications/an-action-plan-for-growing-district-energy-systems-across-canada.html.

CanmetENERGY. (2009, Spring). *Community Energy Case Studies: Revelstoke Community Energy Corporation*. Ottawa, ON: Natural Resources Canada. Retrieved from http://canmetenergy.nrcan.gc.ca/sites/canmetenergy.nrcan.gc.ca/files/files/pubs/Revelstoke(ENG).pdf.

Carbon Talks. (2012, October). *Creating and Enabling a Municipal Environment for District Energy*. Vancouver, BC: SFU. Retrieved from http://resources.carbontalks.ca/guides/CarbonTalks-DiscussionGuide-DistrictEnergy.pdf.

Centre for Research on Environmental Decisions. (2009, October). *The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public*. New York, NY: CRED. Retrieved from http://cred.columbia.edu/guide.

City of Revelstoke. (2013). *Revelstoke Sustainability Action Plan 2013 and Appendix 4.* Revelstoke, BC: City of Revelstoke. Retrieved from http://www.cityofrevelstoke.com/DocumentCenter/View/1097 and http://bc-revelstoke.civicplus.com/DocumentCenter/View/1101.

City of Vancouver. (2012, September). *Environment Policy Report: Vancouver Neighbourhood Energy Strategy and Energy Centre Guidelines*. Vancouver, BC: City of Vancouver. Retrieved from http://former.vancouver.ca/ctyclerk/cclerk/20121003/documents/ptec1.pdf.

City of Vancouver. (2012). *Neighbourhood Energy Utility Factsheet.* Vancouver, BC: City of Vancouver. Retrieved from http://vancouver.ca/docs/planning/renewable-energy-neighbourhood-utility-factsheet.pdf.

Comeault, C. (2011, October). *Integrated Community Energy System Business Case Study: Southeast False Creek Neighbourhood Energy Utility*. Vancouver, BC: Sauder School of Business, UBC and Quest Canada. Retrieved from http://www.sauder.ubc.ca/Faculty/Research_Centres/ISIS/Resources/~/media/AEE7D705491345178C4568992FB87658.ashx.

Community Energy Association. (2008, February). *Renewable District Energy in Cities*. Vancouver, BC: CEA. Retrieved from http://www.communityenergy.bc.ca/sites/default/files/Renewable%20District%20Energy%20in%20Cities%20Session%20Notes.pdf.

Compass Resource Management. (2010, May). *Ontario Power Authority District Energy Research Report*. Vancouver, BC. Compass Resource Management. Retrieved from http://www.powerauthority.on.ca/sites/default/files/news/16923_CRM_OPA_District_Energy_Management_Briefing_Note_20Feb10rev15May10.pdf.

Copenhagen Energy. (no date). *District Heating in Copenhagen: An Energy Efficient, Low Carbon, and Cost Effective Energy System*. Copenhagen: Copenhagen Energy. Retrieved from http://www.dbdh.dk/artikel.asp?id=1863&mid=24.

Drake Landing Solar Community. (no date). http://www.dlsc.ca.

Enwave. (2013). Enwave Services. http://www.enwave.com/services.html.

Federation of Canadian Municipalities. (2012, March). *Partners for Climate Protection Greenhouse Gas Reduction Initiative of the Month. Town of Okotoks: Drake Landing Solar-powered Community District Heating System*. Ottawa, ON: FCM. Retrieved from http://www.fcm.ca/Documents/case-studies/PCP/Okotoks_Drake_Landing_Solar_Powered_Community_District_Heating_System_EN.pdf.

Gonzalez, C.M., & Tyler, T.R. (2007). Why do People Care about Procedural Fairness? In. K. Tornblom and R. Vermunt (Eds.), *Distributive and Procedural Justice: Research and Social Applications* (pp. 91-110). Aldershot, UK: Ashgate Publishing.

Halifax Regional Municipality. (2013). Alderney 5 Energy Project. Retrieved from http://www.halifax.ca/facilities/Alderney5.html

Halifax Regional Municipality. (2013). District Energy. Retrieved from http://www.halifax.ca/environment/DistrictEnergy.html

International Association for Public Participation. (2006). *IAP2 Public Participation Toolbox*. Thornton, CO: IAPP. Retrieved from http://iap2.affiniscape.com/associations/4748/files/06Dec_Toolbox.pdf.

International Association for Public Participation. (2007). *IAP2 Spectrum of Public Participation*. Thornton, CO: IAPP. Retrieved from http://www.iap2.org/associations/4748/files/IAP2%20Spectrum_vertical.pdf.

International District Energy Association. (2007, May). *Markham District Energy*. Westborough, MA: IDEA. Retrieved from http://www.districtenergy.org/assets/CDEA/Case-Studies/Markham-District-Energy-5-29-07.pdf.

International District Energy Association. (2007, July). *Enwave: Deep Lake Water Cooling*. Westborough, MA: IDEA. Retrieved from http://www.districtenergy.org/assets/CDEA/Case-Studies/Enwave-case-history-Toronto7-19-07.pdf.

International District Energy Association. (2007, September). *Drake Landing Solar Community*. Westborough, MA: IDEA. Retrieved from http://www.districtenergy.org/assets/CDEA/Case-Studies/Drake-Landing-Solar-Community9-25-07.pdf.

International District Energy Association (2009). What is District Energy? Retrieved from www.districtenergy.org/what-is-district-energy.

International Energy Agency District Heating and Cooling Program. (no date). *Urban Community Heating and Cooling: the Southampton District Energy Scheme*. Frankfurt: IEA. Retrieved from http://iea-dhc.org/the-research/case-studies.html.

International Finance Corporation (2007). *Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets.* Washington: IFC. Retrieved from http://www.ifc.org/wps/wcm/connect/938f1a0048855805beacfe6a6515bb18/IFC_StakeholderEngagement.pdf?MOD=AJPERES.

Konradl, J., Schmöller, D., Suck, A. et al. (2012, February). *Regionales Energiekonzept Metropolregion Rhein-Neckar-Langfassung*. Mannheim: Verband Metropolregion Rhein-Neckar and Zentrum für rationelle Energieanwendung und Umwelt GmbH. Retrieved from http://www.m-r-n.com/fileadmin/user_upload/VRRN/Planung_und_Entwicklung/Aufgaben/Energie/Energiekonzept_web.pdf.

Lind, E. A., & Tyler, T. R. (1988). *Social psychology of procedural justice*. New York, NY: Plenum Press.

Lohmann, M. and Wilson, M. (2011). *City of Revelstoke Community Energy and Emissions Plan*. Fernie and Gibsons, BC: ThinkBright Climate Solutions and Enerficiency. Retrieved from http://www.cityofrevelstoke.com/documentcenter/view/361

Markham District Energy (2013, March). *MDE Backgrounder and Fact Sheet*. Markham, ON: Markham District Energy. Retrieved from http://www.markhamdistrictenergy.com/documents/MDEBackgrounderFactSheetMarch2013.pdf

Morphy, T. (2013a). Stakeholder Analysis. http://stakeholdermap.com/stakeholder-analysis.html

Morphy, T. (2013b). Stakeholder Definition. http://stakeholdermap.com/stakeholder-definition.html

Morphy, T. (2013c). Stakeholder Engagement. http://stakeholdermap.com/stakeholder-engagement.html

Morphy, T. (2013d). Stakeholder Planning and Management. http://stakeholdermap.com/stakeholder-management.html.

Paavola, J. (2008). Science and Social Justice in the Governance of Adaptation to Climate Change. *Environmental Politics,* 17(4), 644-659.

Preservation Green Lab, Centre for Sustainable Business Practices. (2010, September). *The Role of District Energy in Greening Existing Neighbourhoods*. Portland, OR: University of Oregon. http://www.preservationnation.org/information-center/sustainable-communities/green-lab/additional-resources/District-Energy-Long-Paper.pdf

Southampton City Council. (2010) Geothermal and CHP Scheme. Retrieved from http://www.southampton.gov.uk/s-environment/energy/Geothermal/.

SPARC BC. (2013, July). *Community Engagement Toolkit*. Burnaby, BC: SPARC BC. Retrieved from http://www.sparc.bc.ca/resources-and-publications.

Vanderheiden, S. (2008). *Atmospheric justice: A Political Theory of Climate Change*. Oxford, UK: Oxford University Press.

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Natural Resources, 2014

For information regarding reproduction rights, contact Natural Resources Canada at copyright.droitdauteur@nrcan-rncan.gc.ca

Aussi disponible en français sous le titre : GUIDE DE MOBILISATION DES INTERVENANTS – LES SYSTÈMES ÉNERGÉTIQUES URBAINS