

Ford Site Energy Study - Technical Advisory Group Meeting #1

September 5, 2014, 9:00 a.m. to noon

Attendees

TAG Members: George Andraos, John Carmody, Eric Engh, Bill Grant, Richard Graves,
Zack Hansen, Matt Kramer, Laura McCarten, Matt Schuerger, Ken Smith,
Sheldon Strom

Study Team: Pernille M. Overbye, Jakob Bjerregaard, Flemming Kristensen

City of St Paul: Merritt Clapp-Smith, Anne Hunt, Jonathan Sage-Martinson

Observers: Libby Kantner, John Marshall

Meeting Notes

1. Welcome and Overview of the Ford Site Energy Project – Anne & Merritt
2. Self-introductions - Technical Advisory Group members, study team, and City staff
3. Ramboll/Krifcon consultant team experience, interests, and relevant projects – study team
4. Brief history of the Saint Paul Ford site energy systems – George Andraos
 - Company-wide Ford has achieved 45% efficiency improvement (kWh per unit of production) in recent years;
 - The St Paul Ford site has historically been nearly 'net zero energy' (annual electricity consumption and generation have nearly netted to zero over recent decades);
 - The hydro electric plant adjacent to the St Paul Ford site has been sold and is now an independent power producer with a sales contract to Xcel Energy;
 - Ford plans to make a decision in the coming months regarding whether to keep or demolish the main steam tunnels (about 12 ft by 12 ft concrete, from the steam plant to the center of the St Paul site, relatively shallow).
5. Overview of consultant team analyses to date – study team
6. Group questions and discussion: What are the goals for the site's energy? Do we aim for net zero and how would we define that? What are the best opportunities to achieve the goals? What are the key obstacles or issues? – facilitated group discussion
 - The TAG discussed the following energy study goals:
 1. Visionary, Legacy project
 2. Net Zero
 3. Energy Efficient
 4. Cost Effective
 5. Resilient
 - Net Zero

- Include carbon and energy use; exclude the adjacent hydro which is now operated and marketed independently;
 - Recognize implementation / build-out timing (i.e. site 'net zero' when fully developed ?);
 - Ford's corporate preference is to focus on tangible on-site sustainability measures (i.e. practice has been to not use off-site sources or paper transactions such as the purchase of credits to meet sustainability goals);
 - The goal of 'visionary / legacy' also leads to a focus on tangible on-site sustainability measures;
 - The base analysis should focus on net within the site; then do a high level sensitivity analysis including off-site sourcing to identify cost implications.
- Energy Efficient
 - Follow the state Sustainable 2030 building requirements (current St Paul green building policy)
 - Add alternative scenario to highlight implication of energy efficiency ambitions
 - Flexible / Adaptable
 - Core infrastructure on the site should be capable of supporting the expected range of future site uses and developments in energy prices and available technologies
 - Current state policies – include in the site goals
 - Greenhouse Gas Emissions Goals; Renewable Energy Standard; Renewables preference; Conservation Improvement Program, etc.
 - Link the goals into the surrounding neighborhoods
 - Articulate aspects of the energy system beneficial to the community
 - Cost effective
 - Measured over the longer term (30+ years ?) for infrastructure; Measured over the shorter term (10+ years ?) for buildings
 - Competitive
 - What is the value added proposition for customers / residents
 - Must be an attractive place to developers
 - Resilient
 - Both within the site and from the site
 - Additional site opportunities include
 - Potential for: seasonal thermal storage, anaerobic digestion
7. Upcoming activities and schedule – study team and Anne/Merritt
- Next TAG meeting: November 12th, 9am to Noon
8. Finding project information on the web and request for articles/resources – Merritt
9. “Builders and developers panel” and Public meeting schedule?