Energy Trust of Oregon

Biofuel Efficiency Project Measure Discussion

Conservation Advisory Council
February 20, 2008

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Question

- Should Energy Trust efficiency programs fund projects that use renewable biofuels or biogas to supplant the thermal load supplied by natural gas or electricity?
- **Biofuel** can be broadly defined as solid, liquid, or gas fuel consisting of, or derived from biomass (living and recently dead biological material that can be used as fuel or for space heat, water heat, and industrial production)

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Context

- OPUC definition for conservation:
  - Conservation means any reduction in electric power or natural gas as a result of efficiency of energy use, production, or distribution and includes cost-effective fuel conversion
- Solar thermal precedent
  - Programs currently provide efficiency funding for solar thermal projects that reduce electric and natural gas consumption
- Why not extend this policy to other renewable sources of energy that can reduce natural gas and electric consumption?

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Environmental questions

- Do we care about the ancillary costs of biofuel delivery?
  - Local bio-waste product vs. commercially produced biofuels
  - Recommendation: Under cost-effectiveness rules we are required to consider this.
- Emission requirements
  - BioPower requires all regulatory permits in place (DEQ)
  - Recommendation: Same criteria for bioheat.
- Social, economic and ecosystem impacts vary by source – do we specify which sources are acceptable?
  - Local source hog fuel off-sets NG to heat drying kilns
  - Manure biogas off-sets NG to provide hot water at dairies
  - Biodiesel off-sets NG in building boilers to provide space heat
  - Recommendation: Do not differentiate- but apply environmental and economic criteria to specific projects

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Rules of Engagement

- Should the project first consider BioPower option?
  - Recommendation: Yes. CHP option should be explored before thermal-only consideration.
- Should the project site be a current contributor to public purpose funding?
  - Recommendation: No. This criteria is not applied to new buildings and homes.
- Should the project site be required to contribute to public purpose funding after project is completed?
  - New construction projects may never have a meter installed
  - Recommendation: Yes. Energy Trust policy requires "pay to play"
    - Exception are Self Directors who can receive reduced incentives

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Example Project Path (Existing)

Participant wants to replace current fuel with biofuel

- Fuel type - Oil, propane, or other fossil fuel: we bow out
- Electric or natural gas:
  - Perform technical and economic feasibility assessment of existing system and high performance biofuel system
    - Establish current equipment fuel consumption
    - Determine high efficiency gas or electric option costs to derive incentive offering (Incremental cost for end-of-life systems)
    - Perform societal cost-effectiveness screening using avoided fossil fuel as savings and project cost
  - Offer the standard PE-EB program upgrade incentive for a fossil fuel efficiency system toward the cost of the proposed high performance biofuel system, providing it passes societal cost effectiveness
  - Claim all of the net base case off-set electric and or gas usage

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Example Project Path (New)

Participant wants to upgrade their new equipment design from a fossil system to a biofuel system

- Same project assessment as existing path except:
  - Perform technical and economic feasibility assessment of *initially proposed fossil fuel system* and high performance biofuel system
  - Offer the standard *NB program incremental* incentive for a fossil fuel efficiency system toward the cost of the proposed high performance biofuel system, providing it passes societal cost effectiveness

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Provisions for Consideration

- Participant must agree to initiating site-wide efficiency program prior to or coincident with undertaking biomass project???
  - Site-wide walkthrough assessment

- To receive incentives, applicant must make a reasonable case that the project could not go forward as a biomass system without Energy Trust incentives, OR would go forward with a less efficient biomass-fueled system???

- If the project results in participant going off PP rate (transport gas)
  - Study incentives can be still offered if it's not clear at the time that the project would go off the PP rate???
  - No equipment incentive will be offered
  - ET may still claim savings if developer asserts that ET assistance and tech study were pivotal to the project moving forward.

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