SNAP

Sustainable Natural Alternative Power
*and other interconnections topics*

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GVEA Alternative Energy Team member
Background: Green power interest

- February 2003: “Member Satisfaction & Green Power Interest Survey”
  - Strong member interest, specifically positive environmental effects
  - Overwhelming majority supported membership-wide investment in sharing costs
  - Believed a robust education campaign significant for GVEA membership’s understanding of green power issues
Background: GPAC

- GVEA organized Green Power Advisory Committee (GPAC) from interested stakeholder-members
  - Provide input for planning & developing any green power program
  - First meeting October 15, 2003
Background: GPAC purpose

- Identify options, issues, & particular concepts related to industrial-sized green power alternatives
- Provide recommendations regarding green power issues
- Consider
  - Acceptable green power pricing program
  - Green power alternatives
  - Public education plan to broaden understanding
  - Marketing plan to increase purchasing market
Background: GPAC recommendation

Enhanced Energy Efficiency & Conservation

- Enhance existing Energy$ense programs
- Develop new strategies, i.e.,
  - Creating energy efficient appliances program
  - Promoting ENERGY STAR products
  - Offering load management technology
  - Installing smart meters
Background: GPAC recommendation

Education
- Provide clear educational message
- Explain benefits of using & developing green power
Background: GPAC recommendation

Small Scale Renewable Generation

- Use “Sustainable Natural Alternative Plan” (SNAP) model to encourage installation of privately-owned & operated, small-scale, green power systems
SNAP

- Basically, “green power commodity market” managed by GVEA
- Allows & encourages interested members to support local, small-scale green power production by contributing SNAP fund
- Promotes & motivates development of small-scale green power production into grid
SNAP

- No “green power pricing” rate
- GVEA manage SNAP —
  - Collects SNAP contributions from “purchasers”
  - Meters & accounts for SNAP power delivered by small-scale producers
  - Distributes SNAP funds collected each year to producers, around Earth Day in April
SNAP impact small

- Minimal admin costs
- None to non-participating customers
- Purchasers support what they choose to contribute
- Producers have minimal monthly meter charge accounted for annually
SNAP benefit large

- Promote long-term, small scale renewable generation
- Creates market for producers
- Creates market for purchasers (i.e., contributors, supporters, donators)
- Voluntary
- Good will
- Action, not just words
- Community education, awareness
Purchasers’ sign-up options

- Check box on the bill (✓) for SNAP “contribution”
- Telephone or personal contact
- Voluntary contribution included on current statement balance each month, until discontinued by the customer
SNAP Purchasers’ costs

- Voluntary SNAP charge added to bill each month
- Purchase, support essentially donation, contribution
- Flexible –
  - purchasers pay any amount chosen
  - discontinue or change any time
Sample bill including SNAP

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<tr>
<th>Date</th>
<th>KWH</th>
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<td>12/15/2004</td>
<td>33,426</td>
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<tr>
<td>03/04/2005</td>
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**Member Usage History**

- **EST**
- **Mar-05**
- **KWH**
- **DAYS**
- **AVG. Daily Use**

<table>
<thead>
<tr>
<th>MONTH</th>
<th>KWH</th>
<th>DAYS</th>
<th>AVG. Daily Use</th>
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**Balance Forward**

- **$15.00**
- **$196.50**
- **$1.58**
- **$0.79**
- **$10.00**

**Total**

- **Estimated**
- **$88.59**
- **$223.97**
- **Past Due**
- **$188.59**
- **$123.56**

***DELINQUENT NOTICE***

Your account is DELINQUENT. Please contact our member services office at 452-1151 immediately to avoid possible disconnection of your electric service.

YOUR USAGE WAS ESTIMATED

Please compare the estimated meter read with the read on the meter. If they vary significantly call our billing office at 452-1151 for an immediate adjustment.

Your fuel adjustment of 0.00079 per KWH is a result of GVEA's cost of fuel and energy purchases.
SNAP contribution: $10 / month
SNAP contribution: $10 / month
Contributed SNAP funds

- Escrow account managed by GVEA
- Distributed annually, based on percentage of kWh generation
SNAP Producers’ costs

- $100 service application & inspection fee (one-time)
- $10 account set-up fee (one-time)
- $3.65 monthly meter fee
- Production & monthly meter charge recorded monthly but balanced annually, around Earth Day in April
- Generation & connection equipment costs borne by producers
SNAP meter fee

- $3.65 / month (special SNAP tariff)
- Assessed at end of SNAP year:
  - $3.65 / month x 12 months in year = $43.80 / year
- If SNAP generation does not cover monthly meter fee, invoice for balance due is generated
Estimated generation costs

- 1-kilowatt solar system
  - Equipment $5,600
  - Installation $2,000
  - Total $7,600

- 10-kilowatt wind system
  - Equipment $30,000
  - Installation $5,000
  - Total $35,000
SNAP Producers’ revenue

- Rate paid under Schedule QF-1 co-gen & small power tariff
  - $0.07740 per kWh*

- Percent of SNAP escrow fund paid, determined by share of kWh produced
  - SNAP fund closed each March 31st
  - SNAP funds divided among all producers based on percentages of total production
  - Payment from SNAP escrow account can not exceed $1.50 per kWh**

* Currently (3rd quarter 2005)
** Excess account funds held over to following year
Total SNAP payment to Producers

- Co-gen & small power production rate
  (as of 1 Sept. 2005, $0.0774 / kWh)

- + SNAP fund payment
  (maximum, $1.50 / kWh)

- - meter fees
  ($3.65 x 12 months = $43.80 per year)
SNAP Producers purchasing agreement

- 10-year agreement
- No penalty for opting-out
- Meter fee continues until utility notified
- Purpose to encourage long-term, small-scale renewable generation
- Maximum generation limit is 25 KW
SNAP Producer interconnection

- Must meet acceptable, published standards
- Responsible for all interconnecting costs
- Responsible for any damage to GVEA
- Essentially same as any other co-gen requirements
SNAP system connection

existing meter
SNAP system connection

SNAP meter

existing meter
SNAP Producers’ checklist

- Account sign-up ($10)
- Application, testing & inspection
- ($100)
- Equipment & interconnection requirements
- Applicable regulations for utility electric service
- Insurance requirements – producer’s responsibility
- Violation of policy, connection of non-qualified generators: grounds for non-participation
SNAP marketing

- Marketing absolutely necessary for education & participation
- Internal marketing
- External marketing by the SNAP producers
- Public education, program awareness
- Learning what works, what doesn’t
- Learning from other SNAP programs
SNAP problems and/or issues

- Explaining the concept
- Internal resistance
- Details of getting SNAP “on the bill” & accounting
- Marketing, education
- Necessary & applicable documents
- How to pay?
- Public skepticism
- Monetary benefits? “Why do it?”
SNAP summary

- Promote, supports long-term, small-scale renewable energy generation
- Rate-neutral, market driven
- Fulfill GPAC committee recommendation
- Good will
- Moving forward, action
In enacting PURPA, President Jimmy Carter and U.S. Congress sought to decrease Nation's dependence on foreign oil, increase domestic energy conservation & efficiency.

PURPA encouraged development of co-generators & small power producers by eliminating certain barriers controlled by public utilities.

PURPA defined class of independent generators as "qualifying facilities" (QFs), mandated utilities purchase power from QFs.
Public Utility Regulatory Policies Act of 1978 (PURPA)

Section 210 requires public utility to purchase power produced by “qualifying facilities” at utility's “avoided energy cost” or “non-firm power price” i.e., equal to their cost of producing or buying electricity from large generation facility
Energy Policy Act of 2005
Signed into law 8 August 2005

Mandatory within 18 months after enactment

DOE, in consultation with FERC (Fed. Energy Reg. Comm.), shall

- complete a study on benefits of cogeneration & small power production
- submit report to President & Congress (sec. 1817)
Energy Policy Act of 2005

- Homeowners & businesses, up to 30% of cost installing a solar power system or a solar hot water system, capped at $2,000, placed in service in 2006 or 2007
- Amends Public Utilities Regulatory Policies Act (PURPA) require every public utility to offer interconnection to the power grid & net metering
Energy Policy Act of 2005

- Extends production tax credit through 2007 for electricity from wind power, geothermal power, biomass, landfill gas, small irrigation power, and trash combustion facilities.

- Requires federal government by 2013 to buy at least 7.5 percent of its electricity from renewable energy sources, including wind, solar, biomass, landfill gas, ocean, geothermal, municipal solid waste, and new hydroelectric
Energy Policy Act of 2005

- Requires annual assessment of all renewable energy resources, including solar, wind, biomass, ocean, geothermal, and hydroelectric energy sources.
- Allows credit of 2.5 gallons for every gallon of ethanol produced from wastes or cellulose (woody) biomass sources.
http://www.govtrack.us/

GovTrack.us is a nexus of information about the United States Congress. GovTrack follows

- legislation status
- activities of senators & representatives
Cogeneration and Small Power Production (3 AAC 50.750 - 3 AAC 50.820)

Purpose to encourage cogeneration & small power production

Setting guidelines for establishment of reasonable, nondiscriminatory charges, rates, terms, and conditions under which interconnection and purchases & sales of electric power will occur between an electric utility & a qualifying facility (QF).