“EM”-POWERING THE SENECA NATION

Anthony Giacobbe – Director of Power & Gas
Marlene Wakefield – Project Manager
Jim Yockey – URS/Baker Tilly
**Membership and Territories**

**Total Enrolled Membership:** 8,221 members

**Members Residing On Territory:** 4,239 members

**Territories:**
- Allegany Territory
- Cattaraugus Territory
- Oil Spring Territory
- Niagara Falls Territory
- Buffalo Creek Territory
Elected Government

SNI Tribal Council and Executives
**Mission Statement**

*The mission of Seneca Energy* is to ensure the security, prosperity and independence of the Seneca Nation by building a sustainable energy platform and lowering energy costs for the Nation and its residents.
SNI Energy Vision

- Cultivate Energy Independence
- Improve Energy Infrastructure
- Reduce Energy Costs
- Generate Economic Development
- Utilize Renewable Resources
- Provide Environmental Benefits
- Build & Train SNI Workforce
- Form Central Energy Hub
Past Activities and Projects

- DOE First Steps Grant for Strategic Energy Planning
- DOE NREL Anemometer Loan Program
- DOE First Steps Grant for Energy Organization Planning
- DOE Energy Efficiency and Conservation Block Grant
- DOI Natural Gas Assessment
- DOI Strategic Energy Planning Assistance
- Tribal Energy Program – Clean Energy Deployment Grant
What makes this a Community Energy Project?

- Aggregated Benefit
- Shared Credit
- Distributor of benefit not bill
- Encourages bills to be current
- Tribal capacity in account management/billing
What makes this a Community Energy Project?

It's All About the Process

[Diagram showing flow of processes and calculations related to community energy project]
PO: Create database of customers through sign-up of residential NGI accts

SE estimates 1572 households for a total number Catt electric accounts. Actual sign-ups showing electric bills will govern actual allocatees. ICA with this example shows 800.
**Process for Benefit Distribution**

- Actual meter reading
- NGI Aggregated Net Metering Credit
  - $4,526,666.00 Est kWh
  - $0.10 Est credit
  - $452,666.60 Est Annual Credit
  - $37,722.22 Est Monthly Credit

Revision #4

P1: Monthly Credit verification and transfer

From SNI govt electric accts, verify that credit was received, verify amount and transfer aggregated amount into Seneca Energy administrative account.
Process for Benefit Distribution

P2:
Extract 5% admin fee then allocate credit equally to all signed up residential accounts

0) determine ICA
1) MC-AF=TAC $1,886.11 subtract from
2) TAC/ICA=TAS $37,722.22 Monthly Credit (MC)
3) TAS-AAS=RA $35,836.11 Total Available Credit (TAC)
4) RA*ICA=MR $30.00 divide by Individual Credit Allotment (ICA)
5) AAS*ICA=RC 1,195 Total Accts Servicable (TAS)

800 subtract Actual Accts Signed (AAS)
395 Reserve Accts (RA)
$30.00 ICA
$11,836.11 Monthly Reserve (MR)

800 AAS
$30.00 multiply by ICA
$24,000.00 Requisition Check (RC)
Process for Benefit Distribution

P4: Verify that check and credits were received and applied properly

Obtain ACH verification and credit list from NGI accounting and file verification credit in dbase.

P3: Generate and verify monthly list of accounts to be credited and obtain monthly requisition check

Upload .xls file to NGI accounting, alert NGI of current ACH amount available for monthly ACH withdrawal.
1.5MW Wind Turbine Project

- $6+MM project
  - $1.5MM DOE TEP Grant
  - $1MM NYSERDA Construction Grant
  - Project payback – 8-9 years

- Generation/Net Metering Credit:
  - ~4,500,000 x $.08 = ~$360,000 savings/yr.
  - Over $10MM in savings over the life of the project

- 48 Facilities use 10.5MM kWh
  - spending ~$1M for a weighted average cost of 10¢ per kWh

- 30-40% Total Energy Savings
Project Preconstruction Activities

- Site selection
- Permitting and Public Outreach
- Modeling, Equipment selection and Agreements
- Consume, Net-meter, PPA or Wholesale
- Interconnection Application
Site Selection

- Site Identification and Evaluation
  - Renewable resource potential
  - Cultural, environmental, visual and noise concerns
  - Three-phase power
  - Land ownership
Permitting/Approvals

- Process/Entities
  - Tribal Council and Executive approval
  - Environmental Protection Department
  - Conservation Department
  - Tribal Historic Preservation Office
  - Natural Resource Committee
  - Utilities Commission

- NEPA Environmental Assessment
  - FAA
  - USFWS
    - Endangered Species Act
  - DOE - FONSI
Public Outreach

- Council Meetings
- Public Meetings
- Newsletter Articles
- Website Links/Email Blasts
- Environmental Assessment Scoping Notification (30 days)
- Environmental Assessment Comment Period (30 days)
Modeling, Turbine and Agreements

- **Engineering, Procurement & Construction contract**
  - TSA: EPC and WT manufacturer
  - LTSA: SNI and manufacturer
  - No waiver of sovereign immunity

- **Vensys 1.5MW Turbine**
  - German Manufacturer
  - 85 meter hub height
  - Gearless rotor
Interconnection

- Net-metering 2MW limit
- National Grid Utility Delays
- Preliminary Estimate = $300,000
- Current Estimate = $821,000
- Utility Contingency (+/- 30) = $151,000
1.9MW Solar Array

- Investment: ~$3.5MM
- Project payback: ~11 years
- Site: 7 Acres - SNI Land
- Power: Net-metered

- Financing: Nation Funded
  - Pursuing refinancing through RUS Loan/USDA
Natural Gas Projects

- Replacing NG pipelines
  - Improving infrastructure
    - Eliminating old pipe, leaks
  - Expansion of NG distribution system
    - Interstate pipeline tap
    - Expand service to hundreds of customers

- Completed P&A project
  - O&M - seven producing wells
  - P&A - 12 wells

- Pennzoil Field
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